



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

Dear Crash Data Researchers/Users:

Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

\*\*\*    \*\*\*    \*\*\*



AUTO SAFETY HOTLINE  
(800) 424-9393  
Wash. D.C. Area 366-0123

**DYNAMIC SCIENCE, INC.**  
In-Depth Accident Investigation

Contract Number DTNH22-94-D-27058  
Case Number DSI-94-AB-010

 1994



## TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.  
CONTRACT NUMBER: DTNH22-94-D-27058  
CASE NUMBER: DSI-94-AB-010

[REDACTED]

This two vehicle crash occurred on an asphalt paved, five-lane, divided urban roadway that intersects a two-lane, westbound entrance ramp during the evening hours of a spring weekday (1994) in [REDACTED] Maryland.

Vehicle 1, a 1994 Buick Le Sabre four-door, was being driven southeast at a speed estimated to have been between 56 and 64 KPH (35 and 40 MPH) by the 70 year old male driver (the case occupant) who was restrained by the available three-point manual lap/shoulder restraints. Occupant 2, a 71 year old female, was sitting unrestrained in the right front seating position. Occupant 3, a 12 year old male, was seated in the left rear seating position restrained by the lap restraint of the available three-point manual lap/shoulder restraints. Occupant 4, a 9 year old female, was sitting unrestrained in the right rear seating position.

Vehicle 2, a 1987 International F9370 tractor with a 16.2 m (53 ft) single drop aluminum trailer, was being driven northwest, at a speed estimated to have been between 8 and 16 KPH (5 and 10 MPH), by the 47 year old male driver who was restrained by the available two-point manual lap restraint.

The driver of Vehicle 2 was in the process of beginning a left turn onto an entrance ramp during the green cycle of a left turn traffic signal. The driver of Vehicle 1 disregarded a traffic signal in the red cycle and drove into the travel path of Vehicle 2. The front plane of Vehicle 1 impacted the right front plane of Vehicle 2 in a head-on configuration.

The Delta V for Vehicle 1 was computed, using CRASH III PC, as 39 KPH (24 MPH) using a CDC of 12FDEW3 and a PDOF of 355 degrees. The combined direct and induced damage width was 155 cm (61 in), and the maximum crush depth was 69 cm (27 in) at C<sub>3</sub>. Vehicle 2 is out of scope; however, a TDC of 12FZLW2 was assigned and maximum crush depth of 83.1 cm (32.7 in) was measured at the right front bumper corner (C<sub>6</sub>)\*. The forces involved in this crash exceeded the manufacturer's threshold in the supplemental restraint system of Vehicle 1, and the driver's side and passenger's side airbags deployed.

- \* NOTE: Due to insufficient residual scene evidence, a CRASH III - damage only program was run using the immovable barrier option (variable 11) for Vehicle 2. This reconstruction is extremely marginal, but the resulting Delta V for Vehicle 1 appears to be reasonable within a range of +/- 8 KPH (5 MPH).

At impact, Vehicle 1 rotated clockwise approximately 190 degrees and came to final rest facing northwest on the southwest shoulder of the roadway. Vehicle 2 veered to the left and came to a controlled stop facing west on the south shoulder of the entrance ramp.

The driver of Vehicle 1 (the case occupant) sustained major injuries consisting of fractures, lacerations, abrasions and contusions; maximum AIS = AIS-5. Occupant 2 sustained major injuries consisting of fractures, avulsions and contusions; maximum AIS = AIS-5. The case occupant and Occupant 2 did not require extrication and, once assisted from the vehicle, were transported by air to a regional trauma center where they were admitted for treatment. Occupant 3 sustained moderate injuries consisting of fractures and lacerations; maximum AIS = AIS-2. Occupant 4 sustained moderate injuries consisting of fractures; maximum AIS = AIS-2. Extrication procedures were not required for Occupants 3 and 4 and, once assisted from the vehicle, they were transported to a regional children's trauma center where they were admitted for treatment.

The driver of Vehicle 2 sustained minor injury consisting of a sprain; maximum AIS = AIS-1. He was transported by land to a local hospital where he was treated and released.

Vehicles 1 and 2 were towed from the scene due to damage sustained in this crash.

*This research was supported (in part) by the National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation, under contract number DTNH22-94-D-27058. The opinions, findings, and recommendations contained herein are those of the authors, and do not necessarily represent those of NHTSA.*

*This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for the contents or use thereof.*

*The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the National Highway Traffic Safety Administration.*

*The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.*

*Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.*

**DYNAMIC SCIENCE, INC.  
ACCIDENT INVESTIGATION  
CASE NUMBER: DSI-94-AB-010**

**TABLE OF CONTENTS**

Accident Data . . . . .	1
Ambience . . . . .	1
Roadway . . . . .	2
Traffic Controls . . . . .	3
Vehicles . . . . .	4
Vehicle Damage and Velocity Estimates . . . . .	5
Collision Sequence . . . . .	6
Occupant Kinematics . . . . .	8
Supplemental Restraint System . . . . .	10
Emergency Rescue Response . . . . .	11
Occupant Data . . . . .	13
Injuries . . . . .	16
Case Occupant Supplement . . . . .	18
Accident Schematic . . . . .	21
Collision Measurement Table . . . . .	22
Photo Index and Photos . . . . .	23
Slide Index and Slides . . . . .	24
Appendices:	
A.    NASS Field Forms	
B.    Police Accident Report	

## Abbreviations

ft	Feet
in	Inches
ABS	Antilock Brake System
AIS	Abbreviated Injury Scale
BLF	Begin Left Front
BLR	Begin Left Rear
BRF	Begin Right Front
BRR	Begin Right Rear
CBE	Cab Behind Engine
CCW	Counterclockwise
CDC	Collision Deformation Classification
CG	Center of Gravity
CM	Centimeter
COE	Cab Over Engine
CW	Clockwise
E, EB	East, Eastbound
ELF	End Left Front
ELR	End Left Rear
ERF	End Right Front
ERR	End Right Rear
FRP	Final Rest Position
I	Interstate Highway
IP	Intermediate Point
KG	Kilogram
KPH	Kilometers Per Hour
LF	Left Front
LR	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
PDOF	Principal Direction of Force
POI	Point of Impact
R	Radius of Curvature
RF	Right Front
RL	Reference Line
RP	Reference Point
RR	Right Rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
T	Time or Elapsed Time (in seconds)
U.S.	United States Highway
V1	Vehicle Number 1
W, WB	West, Westbound

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

**ACCIDENT DATA:**

**Location:** [REDACTED] Maryland  
**Area/Type:** Urban  
**Date/Time:** Spring/evening  
**Accident Type:** Car/tractor-trailer - head-on

**INJURY SEVERITY:**

**Vehicle 1:** Driver (case occupant): AIS-5  
R/F Occupant: AIS-5  
L/R Occupant: AIS-2  
R/R Occupant: AIS-2

**Vehicle 2:** Driver: AIS-1

**AMBIENCE:**

**Viewing Conditions:** No viewing restrictions  
**Cloud Cover:** Clear  
**Precipitation:** None  
**Temperature:** 4-7° C (40-45° F)  
**Road Surface:** Dry

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

**ROADWAY:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Type:</b>	5-lanes, divided at a "T" intersection	5-lanes, divided with 2 dedicated left turn lanes at a "T" intersection
<b>Width:</b>	34.0 m (111.6 ft)	34.0 m (111.6 ft)
<b>Traffic Density:</b>	Light to moderate	Light to moderate
<b>Median:</b>	9.0 m (29.7 ft) wide, raised grass	.6 m (2.0 ft) raised concrete (north), 1.2 m (4.0 ft) raised concrete (south)
<b>Edge:</b>	25.4 cm (10.0 in) raised concrete curb, north. 7.1 m (23.4 ft) asphalt paved shoulder, south.	25.4 cm (10.0 in) raised concrete curbs north and south
<b>Surface:</b>	Asphalt	Asphalt
<b>Reported Defects:</b>	None	None
<b>Co-efficient of Friction (est.):</b>	.90	.90
<b>Vertical Alignment:</b>	Downgrade, negative 4 %	Upgrade, positive 4 %
<b>Horizontal Alignment:</b>	Straight	Straight

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**TRAFFIC CONTROLS:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Signals:</b>	On-color red, yellow and green traffic signals	On-color red, yellow and green traffic signals
<b>Signs:</b>	None	None
<b>Speed Limit:</b>	56 KPH (35 MPH)	56 KPH (35 MPH)
<b>Markings:</b>	Single, solid, yellow painted line separates SE/B travel lane from raised grass median curb. Single, solid, white painted line separates SE/B travel lane from SW shoulder. Solid, white painted stop line in SE/B travel lane.	Single, broken, white painted lines separate NW/B travel lanes 1 and 2. Single, solid, yellow painted line separates NW/B travel lane 2 and raised concrete median. Single, solid, white painted line separates NW/B left turn lane 1 and raised concrete median. Single, broken, white painted lines separate NW/B left turn lanes 1 and 2. Single, solid, yellow painted line separate NW/B left turn lane 2 and south raised concrete median. Solid, white painted stop lines are in NW/B left turn lanes 1 and 2.



**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

**VEHICLES:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Description:</b>	1994 Buick LeSabre Limited 4-door	1987 International F9370 CBE tractor with a 16.2 m (53 ft) single drop aluminum trailer
<b>Odometer:</b>	1334.8 km (829.4 mi)	1,427,766.3 km (887,197.1 mi)
<b>Engine:</b>	V6 / 3.8L	8V-92 TAC 450 GHP Detroit diesel (Calif. engine)
<b>Brake System:</b>	ABS	Conventional air on tractor
<b>Vehicle Modifications:</b>	None	None
<b>Tire Condition:</b>	New car - no measurable treadwear, no abnormal tread wear patterns	All 10 tires on tractor poor with more than - 75 % treadwear, no abnormal tread wear patterns
<b>Manual Restraints:</b>	3-point, manual lap/shoulder restraints at L/F, R/F, L/R and R/R seating positions. 2-point manual lap restraints at C/F and C/R seating positions.	2-point, manual lap restraint at L/F and R/F seating positions.
<b>Automatic Restraints:</b>	Driver's side and passenger's side airbag	None
<b>Reported Defects:</b>	None	None
<b>Cargo:</b>	None	None - trailer empty
<b>Windshield Damage:</b>	Cracked from impact forces	None
<b>Fleet:</b>	None	None
<b>Tow Status:</b>	Towed due to crash damage.	Towed due to tractor crash damage.

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**VEHICLE DAMAGE:**

	<u><b>VEHICLE 1</b></u>	<u><b>VEHICLE 2</b></u>
<b>Object Struck:</b>	Vehicle 2	Vehicle 1
<b>Event Number:</b>	01	01
<b>CDC:</b>	12FDEW3	(TDC) 12FZLW2
<b>Maximum Crush:</b>	68.5 cm (26.9 in) @ C <sub>3</sub>	83.1 cm (32.7 in) @ C <sub>6</sub> (right front bumper corner)

**VEHICLE VELOCITY ESTIMATES:**

	<u><b>VEHICLE 1</b></u>	<u><b>VEHICLE 2</b></u>
<b>Impact Speed (estimated):</b>	56 to 64 KPH (35 to 40 MPH)	8 to 16 KPH (5 to 10 MPH)
<b>Total Delta V:</b>	*39.1 KPH (24.3 MPH)	Out of scope
<b>Longitudinal Delta V:</b>	-39.0 KPH (-24.2 MPH)	
<b>Lateral Delta V:</b>	3.4 KPH (2.1 MPH)	
<b>Energy Dissipation:</b>	107,009.1 j (78,915.3 ft-lb)	

**Calculations based upon:** Crash III PC - damage only (using immoveable barrier code 11 for Vehicle 2)

**\*NOTE:** The above reconstruction is very marginal. The Delta V seems to be reasonable. Due to a lack of residual scene evidence, other reconstruction calculations could not be made.

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

**COLLISION SEQUENCE:**

**PRE-CRASH:** This two vehicle crash occurred during the evening hours of a spring weekday on a five-lane, divided, asphalt paved, urban roadway at its intersection with a two-lane, one-way, westbound entrance ramp in [REDACTED] Maryland. The weather was clear, there were no viewing restrictions, and the road surface was dry and free of defects. The posted speed limit, for both directions of travel was 64 KPH (45 MPH) and traffic volume was light to moderate.

Northwest of the intersection, the SE bound travel lane is separated from the southwest 7.1 m (23.4 ft) asphalt paved shoulder by a single, solid, white painted line. The NE edge of the SE bound travel lane is separated from the 9.1 m (29.9 ft) raised grass median by a single, solid, yellow painted line at the median's 25.4 m (10.0 in) raised concrete curb. There is a single, solid white stop line painted on the road surface for SE bound traffic. The northeast edge of the raised grass median is a 25.4 m (10.0 in) raised concrete curb. The two NW bound travel lanes are separated by single, broken, white painted lines, and NW bound travel lane 1 is separated from the northeast asphalt paved shoulder by a single, solid, white painted line.

Southeast of the intersection, the SE bound travel lane is separated from the 7.1 m (23.4 ft) southwest asphalt paved shoulder by a single, solid, white painted line. The northeast edge of the SE bound travel lane is separated from a 1.2 m (4.0 ft) raised concrete median by a single, solid, yellow painted line. A single, solid yellow painted line at the northeast edge of the median marks the southwest edge of the NW bound left turn lane 2. A single, broken white painted line separates left turn lane 2 and left turn lane 1. The northeast edge of NW bound left turn lane 1 is a single, solid white painted line at a .6 m (2.0 ft) raised concrete median that separates the left turn lanes from the NW bound through travel lanes. The two NW bound through travel lanes are separated by a single, broken, white painted line. NW bound travel lane 1 is separated from a NW bound entrance ramp merge lane by a single, broken, white painted line. The northeast edge of the merge lane is separated from the northeast asphalt paved shoulder by a single, solid, white painted line.

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

SE bound through traffic and NW bound left turning traffic are controlled by on-color green, yellow and red traffic signals. The co-efficient of friction for the roadway is estimated to be .90, there is a negative four percent downgrade for SE bound traffic and the roadway is straight.

Vehicle 1, a 1994 Buick Le Sabre Limited four-door equipped with ABS, was being driven southeast in the SE bound travel lane at a speed estimated to have been between 56 and 64 KPH (35 and 40 MPH) by the 70 year old male driver (the case occupant). The driver was wearing the available three-point manual lap/shoulder restraints in a normal and proper manner. Occupant 2, a 71 year old female, was seated in the right front seating position, and was not wearing the available three-point manual lap/shoulder restraints. Occupant 3, a 12 year old male, was seated in the left rear seating position. Occupant 3 was improperly restrained using only the lap belt portion of the available three-point manual lap/shoulder restraint. The shoulder restraint was apparently behind his back. Occupant 4, a 9 year old female, was seated in the right rear seating position and was not wearing the available three-point manual lap/shoulder restraints.

Vehicle 2, a 1987 International F9370 CBE tractor with a 16.2 m (53 ft) single drop aluminum trailer, was being driven northwest in the NW left turn lane, at a speed estimated to have been between 8 and 16 KPH (5 and 10 MPH), by the 47 year old male driver who was restrained by the available two-point manual lap restraint.

The driver of Vehicle 2 was in the process of turning left onto the westbound entrance ramp from a stopped position in NW bound left turn lane 1. The left turn traffic signal was in the green cycle for turning NW bound traffic. The driver of Vehicle 1 disregarded the SE bound traffic signal, which was in the red cycle, and drove into the travel path of Vehicle 2.

**CRASH:**

As the driver of Vehicle 1 applied the brakes, the front plane of the vehicle impacted the right front plane of Vehicle 2 in a head-on configuration with the front bumper of Vehicle 1 under riding the front bumper of Vehicle 2.

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

The Delta V for Vehicle 1 was computed, using CRASH III PC, as 39.1 KPH (24.3 MPH) using a CDC of 12FDEW3 and a PDOF of 355 degrees. The combined direct and induced damage width was 155 cm (61 in), and the maximum crush depth was 68.5 cm (26.9 in) at C<sub>3</sub> measured at the radiator upper support plane, and 56.2 cm (22.1 in) at C<sub>1</sub> on the front bumper plane\*. Vehicle 2 is an out of scope vehicle; however, a TDC of 12FZLW2 was assigned with a PDOF of 5 degrees, and a maximum crush depth of 83.1 cm (32.7 in) measured at the right front bumper corner (C<sub>6</sub>). The forces in this crash exceeded the manufacturer's threshold in the supplemental restraint system of Vehicle 1, and the driver's side and passenger's side airbags deployed.

\* NOTE: Due to insufficient residual scene evidence, a CRASH III - damage only program was run using the immovable barrier option (variable 11) for Vehicle 2. This reconstruction is extremely marginal, but the resulting Delta V for Vehicle 1 appears to be reasonable within a range of +/- 8 KPH (5 MPH).

**POST CRASH:** At impact, Vehicle 1 rotated clockwise approximately 190 degrees and came to final rest facing northwest 7.3 m (24.1 ft) west and 5.1 m (16.7 ft) northwest of the POI. Vehicle 2 was brought to a controlled stop facing west on the south shoulder of the entrance ramp. The precise FRP for Vehicle 2 could not be identified during the on-site scene examination.

**OCCUPANT KINEMATICS:**

The 70 year old male driver of Vehicle 1 (the case occupant) was seated on a split bench seat with separate back rests in a normal, upright seated position. The 180 cm (71 in), 88 kg (195 lb) driver was wearing the available three-point, manual lap/shoulder restraints, and it appears that he had adjusted the left front electric seat to a position approximately 3/4 of the full rearward position. The seat height adjustment and the seat back rest positions could not be accurately determined due to seat deformation caused by rear seat occupant loading.

At impact, the driver had both hands on the steering wheel rim at unknown o'clock positions. His right foot was on the left side of the brake pedal and his left foot was on the floor/toe pan. Based on driver injuries and on-site vehicle inspection, the driver appears to have been well braced into the left front seat back support with upper and lower extremities extended and joints locked.

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

The driver was projected forward at impact, loading the lap/shoulder restraints and contacting the deploying airbag with his face. Simultaneously, the left front seat back support was loaded by the left rear occupant, who was apparently bracing for impact with both feet on the seat back. As Vehicle 1 began the post crash clockwise rotation, the seat back was further loaded as the right rear occupant was projected to the left and impacted the seat back support. This double loading resulted in the deformation of the seat track/anchor and the left front seat rotated forward and upward (see photos # 44 and # 50).

This loading and seat movement resulted in the driver further loading the three-point, manual lap/shoulder restraints (see slides # 41 and # 42) and he sustained bilateral multiple rib fractures with a right pneumothorax, fractured sternum, a left extra pleural hematoma, right chest wall abrasion and a hematoma of the left neck from shoulder restraint loading. As he loaded the lap restraint, he sustained a bilateral abrasion of the lower abdomen.

At impact, the driver's forward movement, and his braced posture, resulted in his right foot deforming, then slipping off, the brake pedal (see photo #42) onto the intruding toe pan and he sustained a right trimalleolar fracture. In addition, his right knee impacted the left instrument panel resulting in an abrasion of that knee.

Occupant 2, an 71 year old female, was sitting in a normal, upright seated position on a split bench seat with separate backs in the right front seating position. At the time of the crash, Occupant 2 was 157 cm (62 in) in height and weighed 60 kg (132 lb). She was not restrained by the available three-point manual lap/shoulder restraints.

At impact, Occupant 2 submarined the deploying passenger side airbag and her face contacted the lower left portion of the airbag (see photos # 48 and # 49). Her right knee impacted the right instrument panel resulting in a fracture of the right acetabulum from axial loading. As Vehicle 1 began its clockwise post-crash rotation, Occupant 2 was projected sharply to the left as she continued to submarine. Her right lower leg impacted the underside of the right instrument panel and heater/AC duct works resulting in an avulsion (de-gloving) of the lower right leg. Her chest also impacted the right lower instrument panel resulting in a flail chest and her left arm impacted the center instrument panel resulting in an open fracture of the left humerus. She also sustained a right abdominal wall contusion from contact with the right instrument panel.

**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

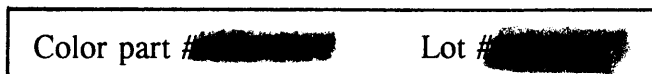
Occupant 3, a 12 year old male, was improperly restrained by the lap portion of the available three-point, manual lap/shoulder restraints, in the left rear seating position. At impact, he had both of his legs extended and his feet braced against the left front seat back support. He was projected forward and his abdomen loaded the lap restraint causing his head and upper torso to project downward. This forward, downward motion resulted in lacerations of the jejunum-ileum from lap restraint loading and a chance L-2 spinal fracture caused by inertial forces as his upper torso was projected downward.

Occupant 4, a 9 year old female, was sitting unrestrained in the right rear seating position, and was also apparently bracing for the impact with both legs extended and both feet on the right front seat back support. At impact, she was projected forward, loading the seat back support, resulting in right and left femur shaft fractures.

**SUPPLEMENTAL RESTRAINT SYSTEM:**

The case vehicle, 1994 Buick Le Sabre Limited four-door, was equipped with driver's side and passenger's side airbags that deployed as a result of a head-on crash with a 1987 International F9370 CBE tractor/trailer combination.

Driver's Side Airbag: The driver's side airbag was manufactured by [REDACTED] and had the following bar code tag on the back side of the bag:



The airbag had a vertical opening seam, as oriented to the top of the steering wheel, and the flaps opened to the left and right at deployment. Inside the module were two electric contact devices to allow for steering wheel hub horn activation. These devices were shaped and marked as follows:

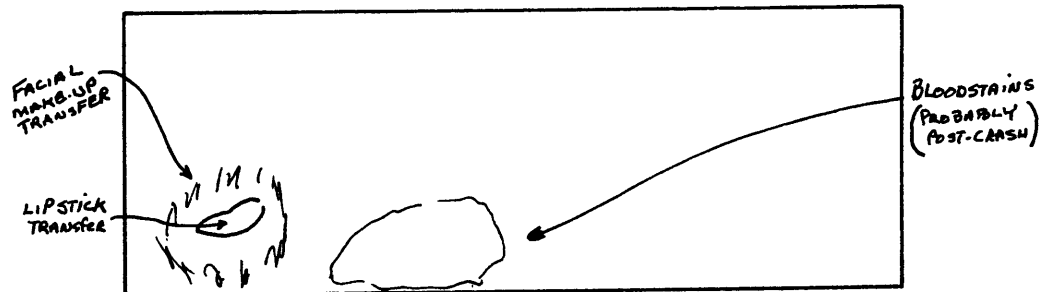


**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

The airbag was not damaged during the crash sequence and did not yield evidence of occupant contact - the blood stains on the bag fabric apparently occurred post crash. The airbag measured approximately 60 cm (23.6 in) in diameter in its deflated, post crash state. The airbag was vented by two vent ports on the back side of the bag (away from the driver). The 2.5 cm (1.0 in) diameter vent ports were located at the 9:00 and 3:00 o'clock positions approximately 8.0 cm (3.0 in) from the airbag seam. The airbag was not tethered.

At the time of Dynamic Science's on-site inspection that occurred 17 days post crash, the airbag contained approximately ten vertical fold creases and three horizontal fold creases as oriented to the top of the steering wheel.

Passenger's Side Airbag: The passenger's side airbag was also manufactured by Morton International. At the time of the on-site vehicle inspection, there were no manufacturer's numbers, tags or stamps found on the airbag. However, there was evidence of occupant contact in the lower left quadrant of the bag:



The airbag measured approximately 65 cm (25.6 in) in length and 50 cm (19.7 in) in height in its deflated, post crash state. The airbag was vented by two vent ports - one on the left side panel of the airbag and one on the right side panel. The vent ports measured 4.5 cm (1.8 in) in diameter. The airbag was not tethered and there was no evidence of fold creases in the bag fabric.

**SCENE CLEARANCE:**

The driver of Vehicle 1 (the case occupant) sustained major injuries consisting of fractures, lacerations, abrasions and contusions; maximum AIS = AIS-5. The driver was not entrapped and extrication procedures were not required to remove him from the vehicle. He was transported by air to a regional trauma center where he was admitted for treatment. Occupant 2, the right front passenger, sustained major injuries consisting of fractures, avulsions and contusions; maximum AIS = AIS-5. This



**Dynamic Science, Inc.**  
**In-Depth Investigation**  
**Case Number: DSI-94-AB-10**

occupant was not entrapped and did not require extrication procedures to remove her from the vehicle. She was transported to a regional trauma center by air, and was admitted for treatment. Occupant 3 sustained moderate injuries consisting of fractures and lacerations; maximum AIS = AIS-2. Occupant 4 sustained moderate injuries consisting of fractures; maximum AIS = AIS-2. Extrication procedures were not required to remove Occupants 3 and 4 from the vehicle. They were both transported by air to a regional children's trauma center, and both were admitted for treatment.

The driver of Vehicle 2 sustained minor injury consisting of a sprain; maximum AIS = AIS-1. He was transported by land to a local hospital where he was treated and released.

Vehicle 1 sustained major frontal damage in this crash and was towed from the scene. The power unit of Vehicle 2 sustained major frontal damage, but the cargo unit was not damaged. However, both units were towed from the scene.

**SAFETY STANDARDS:**

There were no violations of the Federal Motor Vehicle Safety Standards noted during the on-site inspections of Vehicles 1 and 2.

A Federal Motor Carrier Safety inspection was not performed on Vehicle 2. However, the following was noted:

1. The power unit brakes appeared to be in proper adjustment.
2. Tire tread depth was below acceptable levels.
3. The cargo unit could not be located for inspection, but its reported length of 16.2 m (53.0 ft) was in violation of Maryland's 14.6 m (48.0 ft) maximum trailer length.

Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10

**DRIVER AND OTHER OCCUPANTS:**

**VEHICLE 1**

	<b><u>DRIVER (case occupant)</u></b>	<b><u>OCCUPANT 2</u></b>
<b>Age/Sex:</b>	70 years old/male	71 years old/female
<b>Seated Position:</b>	Left front	Right front
<b>Seat Type:</b>	Split bench with separate backs	Split bench with separate backs
<b>Height:</b>	180 cm (71 in)	157 cm (62 in)
<b>Weight:</b>	88 kg (195 lb)	60 kg (132 lb)
<b>Occupation:</b>	Retired	Homemaker
<b>Pre-existing Medical Condition:</b>	None known	None known
<b>Alcohol/Drug Involvement:</b>	None	None
<b>Driving Experience:</b>	60+ years	N/A
<b>Body Posture:</b>	Normal, upright seated position	Normal, upright seated position
<b>Hand Position:</b>	Both hands on steering wheel rim, exact positions unknown	Unknown
<b>Foot Position:</b>	Right foot on brake pedal, left foot on floor/toe pan	Both feet on floor/toe pan
<b>Restraint Usage:</b>	3-point manual, lap/shoulder restraints	None
<b>Additional Occupants:</b>	3	2

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**DRIVER AND OTHER OCCUPANTS (con't):**

**VEHICLE 1**

	<b><u>OCCUPANT 3</u></b>	<b><u>OCCUPANT 4</u></b>
<b>Age/Sex:</b>	12 years old/male	9 years old/female
<b>Seated Position:</b>	Left rear	Right rear
<b>Seat Type:</b>	Bench	Bench
<b>Height:</b>	Unknown	Unknown
<b>Weight:</b>	Unknown	Unknown
<b>Occupation:</b>	Student	Student
<b>Pre-existing Medical Condition:</b>	None known	None known
<b>Alcohol/Drug Involvement:</b>	None	None
<b>Driving Experience:</b>	N/A	N/A
<b>Body Posture:</b>	Upright seated position with both legs extended forward	Upright seated position with both legs extended forward
<b>Hand Position:</b>	Unknown	Unknown
<b>Foot Position:</b>	Both feet on L/F seat back support	Both feet on R/F seat back support
<b>Restraint Usage:</b>	Lap portion only of available 3-point manual lap/ shoulder restraint	None
<b>Additional Occupants:</b>	1	None

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**DRIVER AND OTHER OCCUPANTS (con't):**

**VEHICLE 2**

**DRIVER**

<b>Age/Sex:</b>	47 years old/male
<b>Seated Position:</b>	Left front
<b>Seat Type:</b>	Box mounted bucket
<b>Height:</b>	Unknown
<b>Weight:</b>	Unknown
<b>Occupation:</b>	Truck driver
<b>Pre-existing Medical Condition:</b>	None known
<b>Alcohol/Drug Involvement:</b>	None
<b>Driving Experience:</b>	Unknown
<b>Body Posture:</b>	Normal, upright seated position
<b>Hand Position:</b>	Left hand on steering wheel rim, right hand on gear shift lever
<b>Foot Position:</b>	R. foot on accelerator pedal, L. foot on clutch pedal
<b>Restraint Usage:</b>	2-point manual lap restraint
<b>Additional Occupants:</b>	None

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**INJURIES:**

**Vehicle 1**

	<b><u>INJURY</u></b>	<b><u>AIS/OIC CODE</u></b>	<b><u>ICD-9</u></b>	<b><u>SOURCE</u></b>
<b>DRIVER: (case occupant)</b>	Fractures, bilateral multiple ribs with R. pneumothorax	2450242.5,3411100	807.09	Shoulder restraint
	Fracture, sternum	2450804.2,4411100	807.2	Shoulder restraint
	Hematoma, L. extra pleural	2441804.2,2411100	862.29	Shoulder restraint
	Fracture, R. Trimalleolar (pylon)	2851612.2,1591100	824.6	Brake pedal
	Abrasion, R. Chest wall	2490202.1,1411100	911.0	Shoulder restraint
	Laceration, R. forehead	2290602.1,7977700	873.42	Unknown
	Laceration, L. forehead	2290602.1,7977700	873.42	Unknown
	Hematoma, Left neck	2390402.1,2411100	920	Shoulder restraint
	Laceration, R. 4th finger	2790602.1,1091100	883.0	L. Inst. panel
	Abrasion, lower abdomen (whole area)	2590202.1,0411100	911.0	Lap restraint
	Abrasion, R. knee	2890202.1,1091100	916.0	L. Inst. panel
<b>R/F Occupant:</b>	Flail chest	2450266.5,3111100	807.4	R. Inst. panel
	Fracture, L. humerus (open)	2752604.3,2101100	812.31	C. Inst. panel
	Avulsion, R. lower leg (de- gloving)	2894006.3,1111100	891.0	R. Inst. panel
	Fracture, R. Acetabulum	2852602.2,1111100	808.0	R. Inst. panel
	Contusion, R. abdominal wall	2590402.1,1111100	922.2	R. Inst. panel

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**INJURIES:**

**Vehicle 1**

<b>L/R Occupant:</b>	Fracture, Chance - L/2	2650630.2,8921300	806.4	Inertial forces
	Laceration, jejunum - ileum	2541422.2,8411100	863.20	Lap restraint
<b>R/R Occupant:</b>	Fracture, R. femur shaft	2851816.2,1401200	821.0	R/F seat back support
	Fracture, L. femur shaft	2851816.2,2401200	821.0	R/F seat back support

**Dynamic Science, Inc.  
In-Depth Investigation  
Case Number: DSI-94-AB-10**

**INJURIES:**

**Vehicle 2**

	<b><u>INJURY</u></b>	<b><u>AIS/OIC CODE</u></b>	<b><u>ICD-9</u></b>	<b><u>SOURCE</u></b>
<b>DRIVER:</b>	Sprain, L. Wrist	8751420.1,2041100	842.00	Steering wheel rim

# FRONT INTRUSIONS

Case Number D SI-94-AB-010

## Seat adjusted to:

Forward \_\_\_\_\_

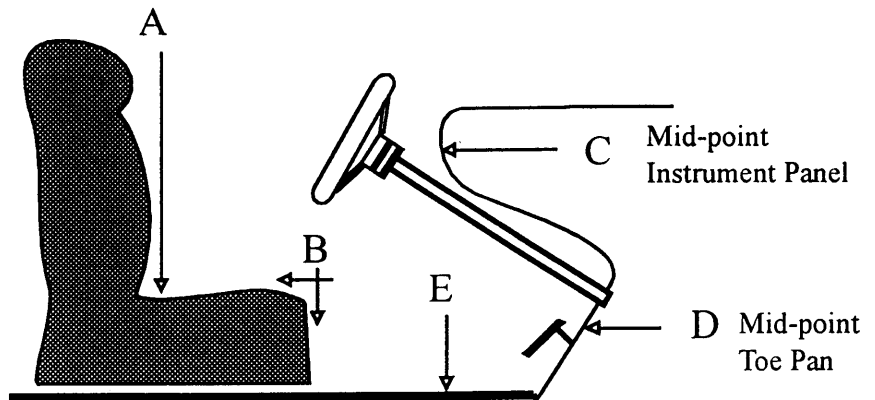
Midpoint \_\_\_\_\_

Rearward 3/4 TO FULL REARWARD POSITION

## Seat Type:

Electric X

Manual \_\_\_\_\_

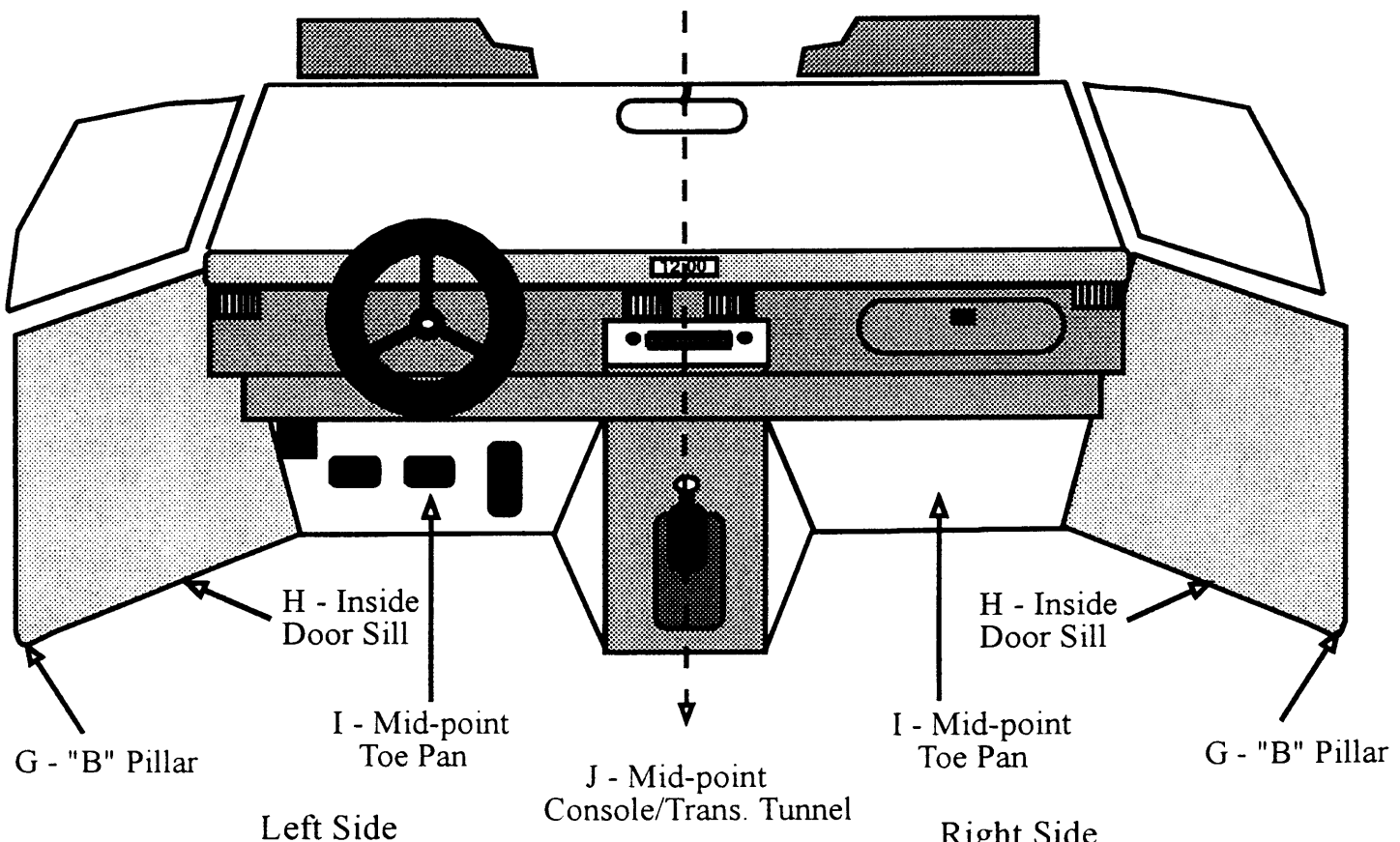


## Left Side

A-B	<u>45.7</u>	cm	<u>18.0</u>	in
B-C	<u>19.1</u>	cm	<u>7.5</u>	in
B-D	<u>54.1</u>	cm	<u>21.3</u>	in
A-B-C	<u>99.8</u>	cm	<u>39.3</u>	in
C-E	<u>44.2</u>	cm	<u>17.4</u>	in
B-E	<u>19.3</u>	cm	<u>7.6</u>	in

## Right Side

A-B	<u>45.7</u>	cm	<u>18.0</u>	in
B-C	<u>25.9</u>	cm	<u>10.2</u>	in
B-D	<u>63.3</u>	cm	<u>25.0</u>	in
A-B-C	<u>109.0</u>	cm	<u>43.0</u>	in
C-E	<u>51.0</u>	cm	<u>20.0</u>	in
B-E	<u>26.0</u>	cm	<u>10.2</u>	in



## Left Side

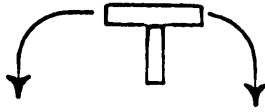
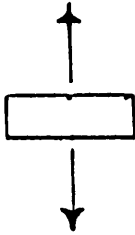
G-I	<u>117.1</u>	cm	<u>46.1</u>	in
H-J	<u>68.6</u>	cm	<u>27.0</u>	in

## Right Side

G-I	<u>127.5</u>	cm	<u>50.2</u>	in
H-J	<u>68.6</u>	cm	<u>27.0</u>	in



R. SIDE BRAKE PEDAL  
8.9 cm (3.5 in)

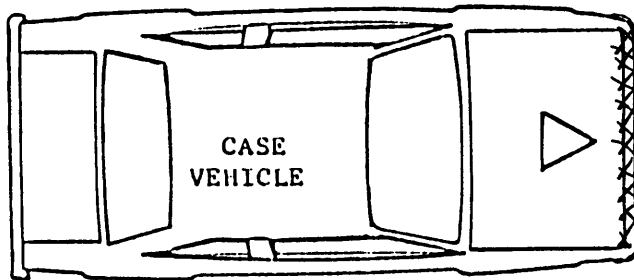


---

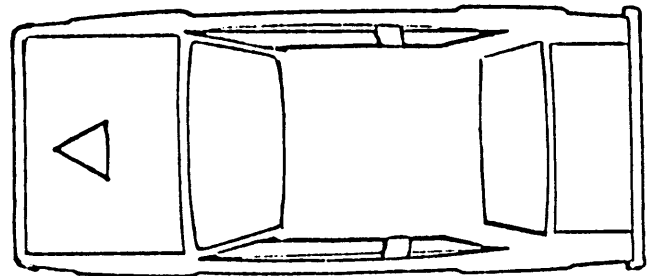
PEDAL MOVEMENT

---

DAMAGE OVERLAP



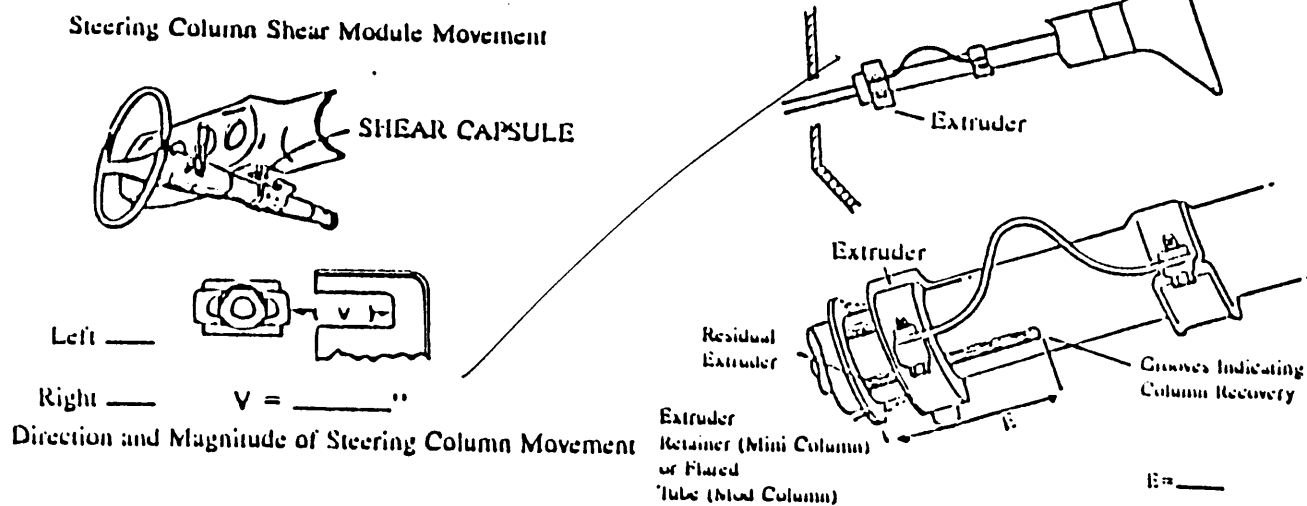
FULL FRONTAL



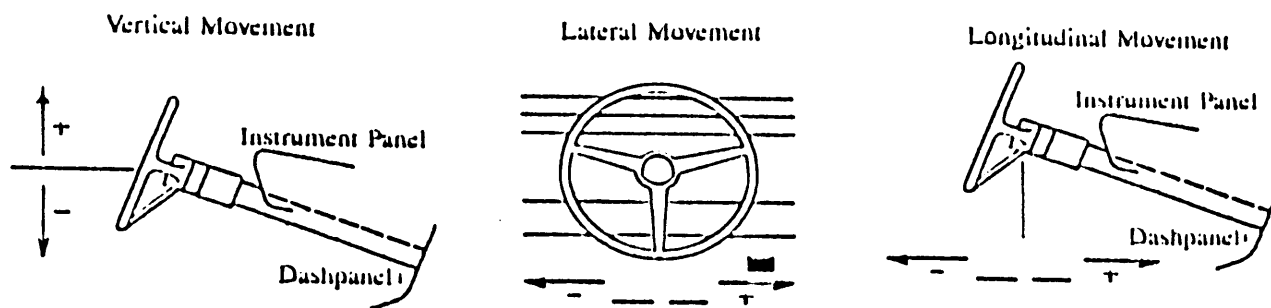
N/A - OUT OF SCOPE

# STEERING COLUMN WORKING DIAGRAMS

## STEERING COLUMN COLLAPSE



## STEERING COLUMN MOVEMENT

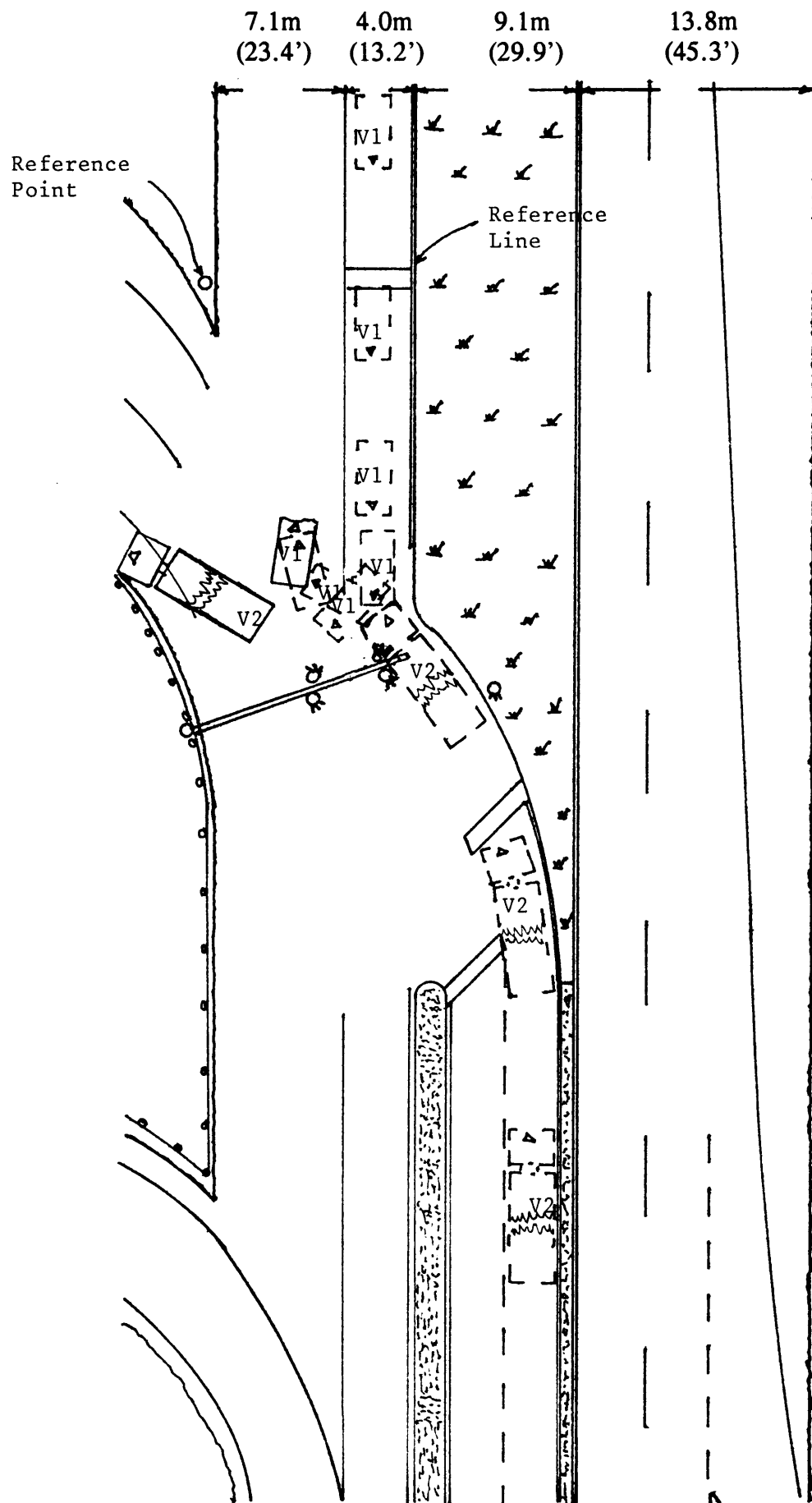


	COMPARISON VALUE	-	DAMAGED VALUE	=	MOVEMENT
VERTICAL		-		=	
LATERAL		-		=	
LONGITUDINAL		-		=	

*No MEASURABLE movement.*

## STEERING RIM/SPOKE DEFORMATION

COMPARISON VALUE	-	DAMAGED VALUE	=	DEFORMATION
	-		=	
	-	$\phi$	=	



DYNAMIC SCIENCE  
DSI-94-AB-010  
1 cm = 3.6 m  
1" = 30.0'

V1 = 1994 Buick LeSabre 4-door  
V2 = 1987 International  
Tractor w/53' Trailer

**COLLISION MEASUREMENTS****Case Number DSI-94-AB-10**

Reference Point: Illuminaire, south edge SE/NW roadway

Reference Line: SW curb line, raised grass median

DATA POINT	LONGITUDINALS	LATERALS
North edge of roadway	0	22.9 m (75.2ft) N
North edge, raised grass median	0	9.1 m (29.9ft) N
South edge, raised grass median	0	0
Single white line (SE/B travel lane)	0	4.0 m (13.2ft) S
South edge roadway	0	11.1 m (36.6ft) S
North edge, north raised concrete median	45.7 m (150.0ft) E	9.3 m (30.4ft) N
South edge, north raised concrete median	45.7 m (150.0ft) E	8.7 m (28.4ft) N
Broken, white line (NW/B left turn lane 1)	45.7 m (150.0ft) E	5.0 m (16.5ft) N
North edge, south raised concrete median (NW/B left turn lane 2)	45.7 m (150.0ft) E	1.2 m (4.0ft) N
South edge, south raised concrete median	45.7 m (150.0ft) E	0
POI (gouge) Vehicle 1 and Vehicle 2	21.0 m (69.0ft) E	2.5 m (8.3ft) S
FRP - V1		
L/F wheel	13.7 m (44.9ft) E	7.6 m (25.0ft) S
R/R wheel	16.7 m (54.7ft) E	6.4 m (21.0ft) S

## PHOTO INDEX

Case No. DSI-94-AB-10

PHOTO NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
1	Vehicle 1	NW	Approach path, Vehicle 1
2-4	Vehicle 1	SE	Travel path, Vehicle 1
5-6	Vehicle 1	SE	POI, Vehicle 1 and Vehicle 2 (gouge)
7	Vehicle 1	NW	Reverse travel path, Vehicle 1
8	Vehicle 1	W	Travel path Vehicle 1, POI to FRP
9	Vehicle 1	W	FRP, Vehicle 1
10-11	Vehicle 1	E	FRP, Vehicle 1 and Reverse travel path FRP to POI
12	Vehicle 2	SE	Approach path, Vehicle 2
13-15	Vehicle 2	NW	Travel path, Vehicle 2
16-17	Vehicle 2	W	POI, Vehicle 2 and Vehicle 1
18-19	Vehicle 2	SE	POI and Reverse travel path, Vehicle 2
20	Vehicle 3	S	Approximate FRP, Vehicle 2
21-34	Vehicle 1	CCW	Exterior views, Vehicle 1
35-54	Vehicle 1	---	Interior views, Vehicle 1 Photo 44 left shoulder restraint detail
55-73	Vehicle 2	CCW	Exterior views, Vehicle 2 Photos 59 & 60 - L/F tire and suspension damage Photos 67-69 - R/F tire and R. fuel tank damage Photos 70-72 - R/F suspension damage
74-83	Vehicle 2	---	Interior views, Vehicle 2











































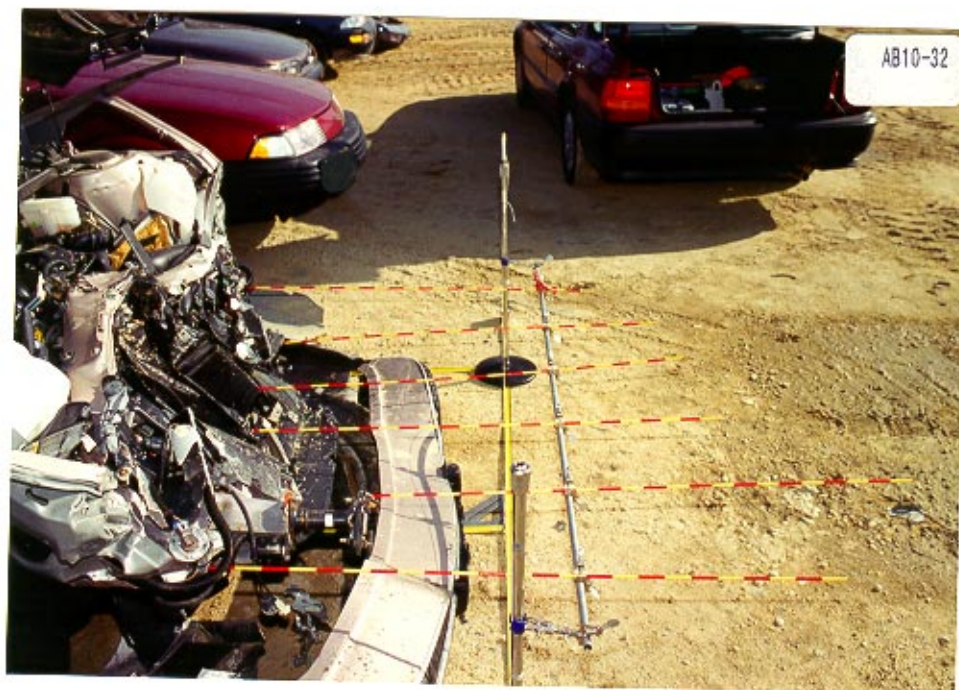


AB10-29



AB10-30



















































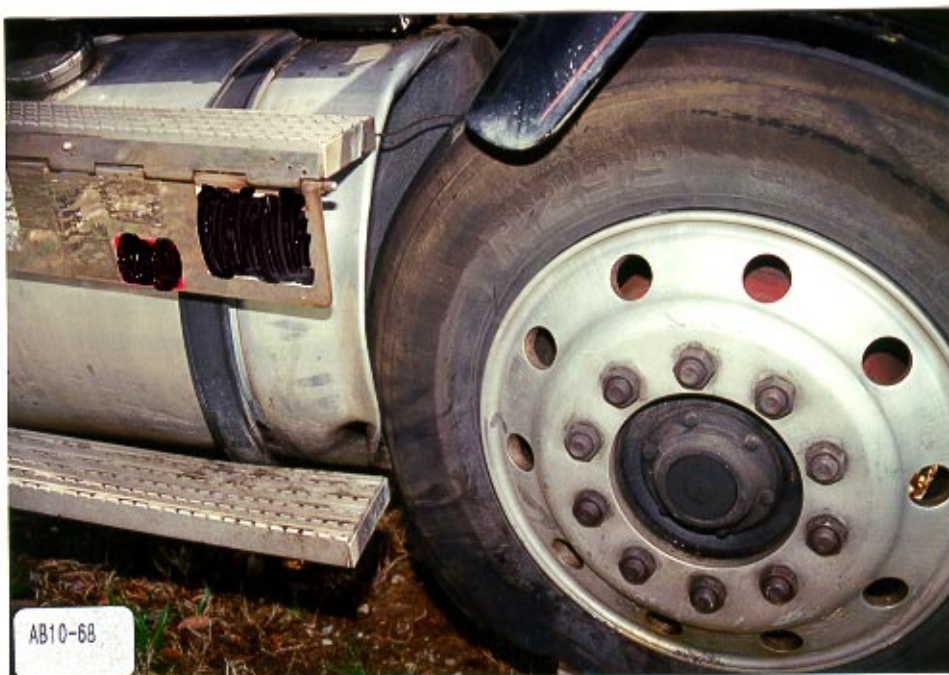




































## SLIDE INDEX

**Case No. DSI-94-AB-10**

SLIDE NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
1	Vehicle 1	NW	Approach path, Vehicle 1
2-4	Vehicle 1	SE	Travel path, Vehicle 1
5-6	Vehicle 1	SE	POI, Vehicle 1 and Vehicle 2
7	Vehicle 1	NW	Reverse travel path, Vehicle 1
8-10	Vehicle 1	SE	FRP, Vehicle 1
11	Vehicle 2	SE	Approach path, Vehicle 2
12-14	Vehicle 2	NW	Travel path, Vehicle 2
15-16	Vehicle 2	NW	POI, Vehicles 2 and 1
17	Vehicle 2	W	Approximate FRP, Vehicle 2
18	Vehicle 2	SE	Reverse travel path, Vehicle 2
19-31	Vehicle 1	CCW	Exterior views, Vehicle 1
32-52	Vehicle 1	---	Interior views, Vehicle 1 Slides 41 & 42 - Detail, driver's shoulder restraint Slides 44, 46 & 47 - Detail passenger's side A/B
53-70	Vehicle 2	CCW	Exterior views, Vehicle 2 Slides 56 & 57 - Detail L/F suspension damage Slides 65-67 - Detail R. fuel tank damage Slides 68-69 - Detail R/F suspension damage
71-80	Vehicle 2	---	Interior views, Vehicle 2















































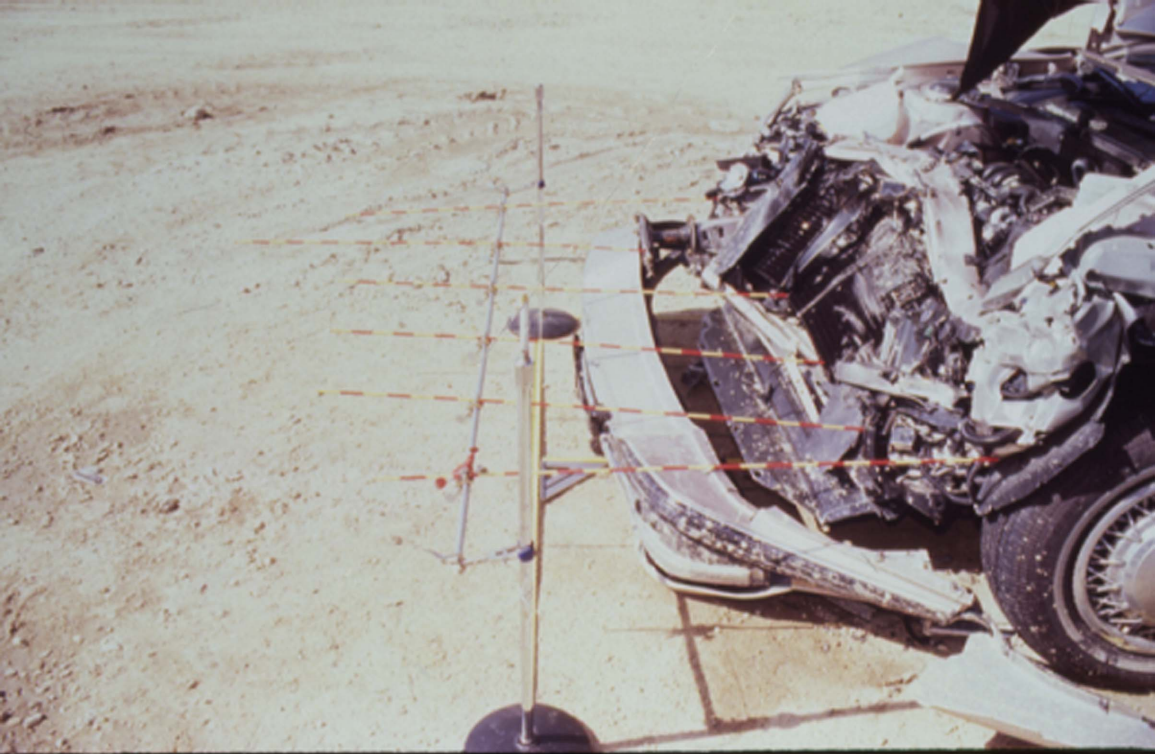


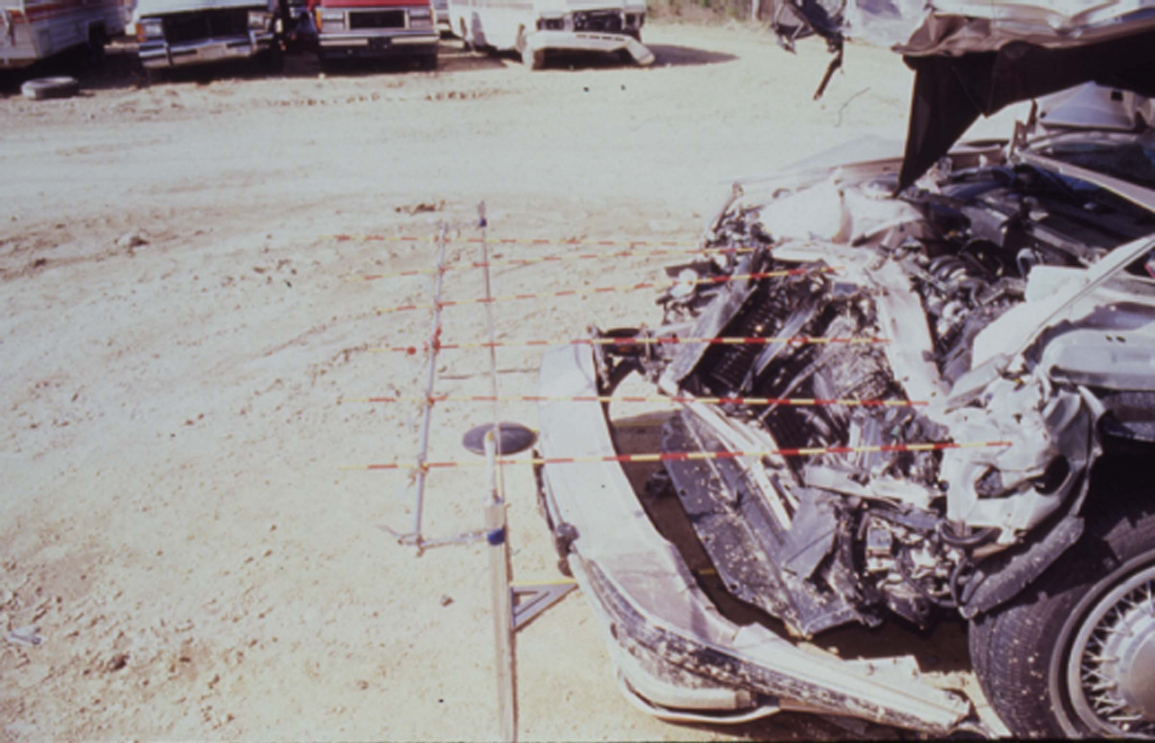
















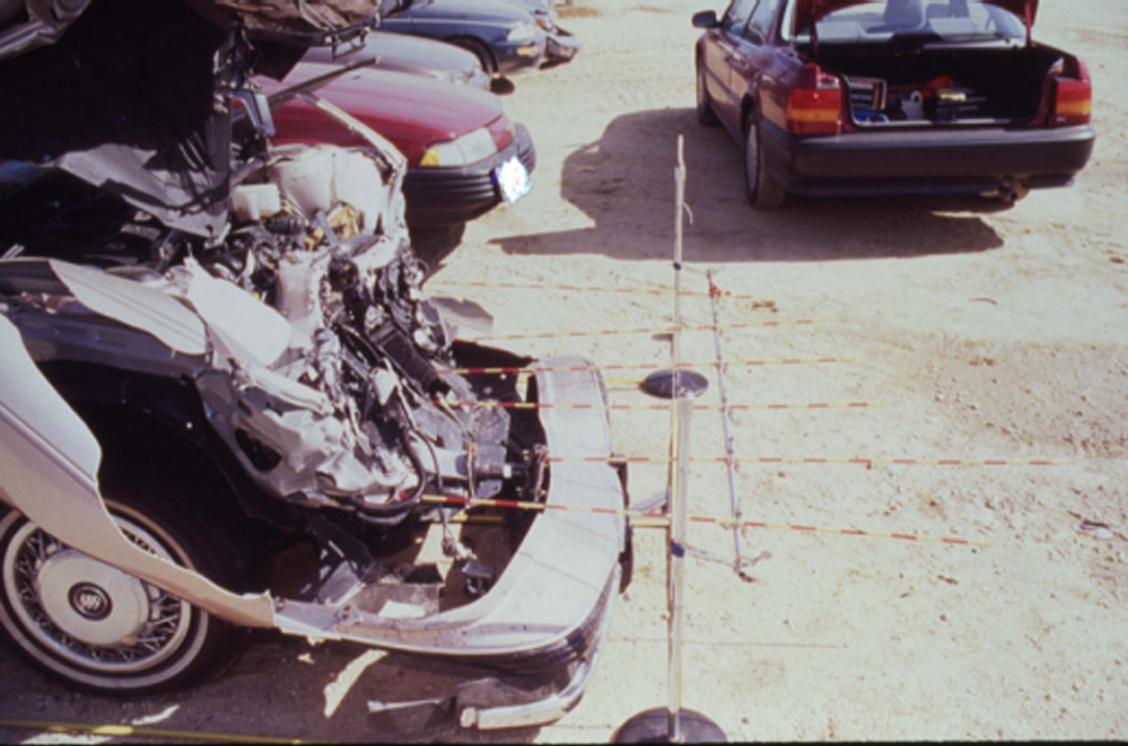


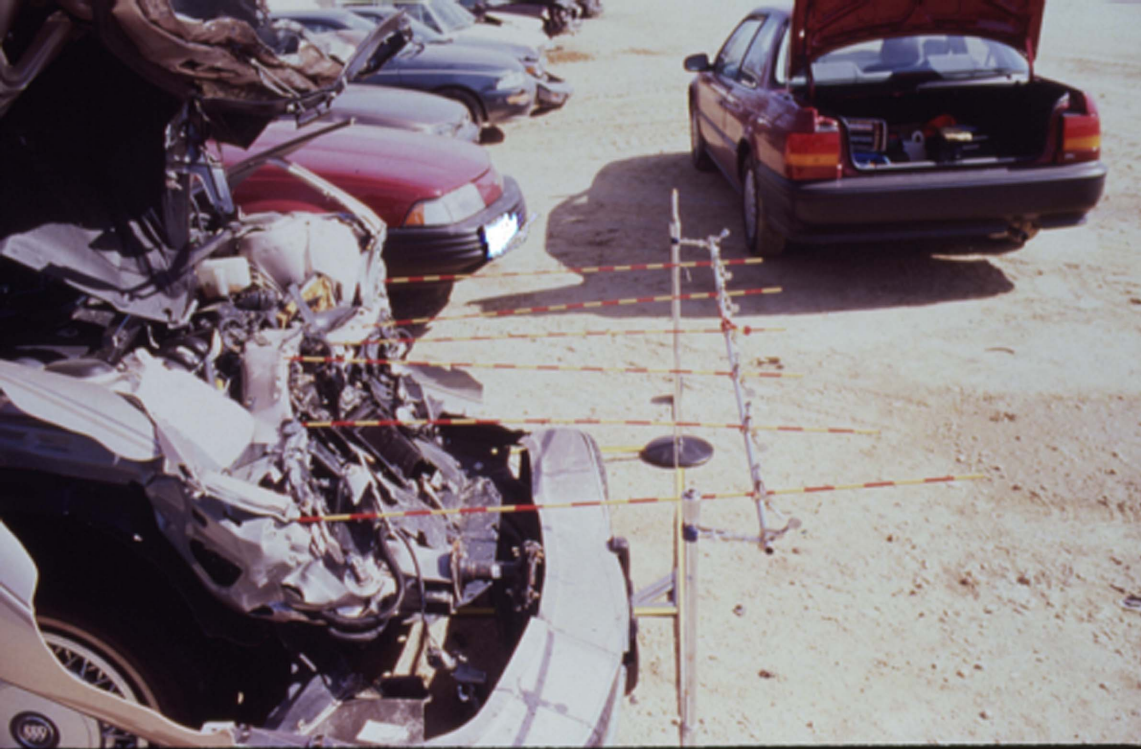




















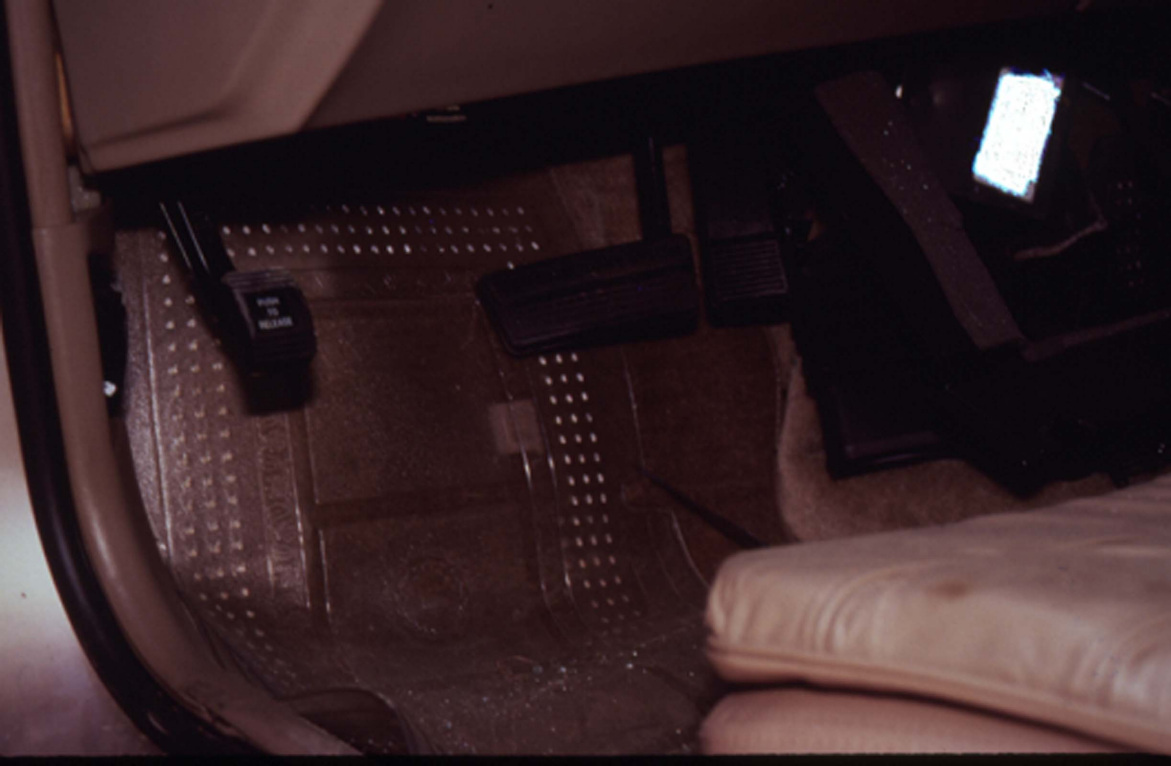










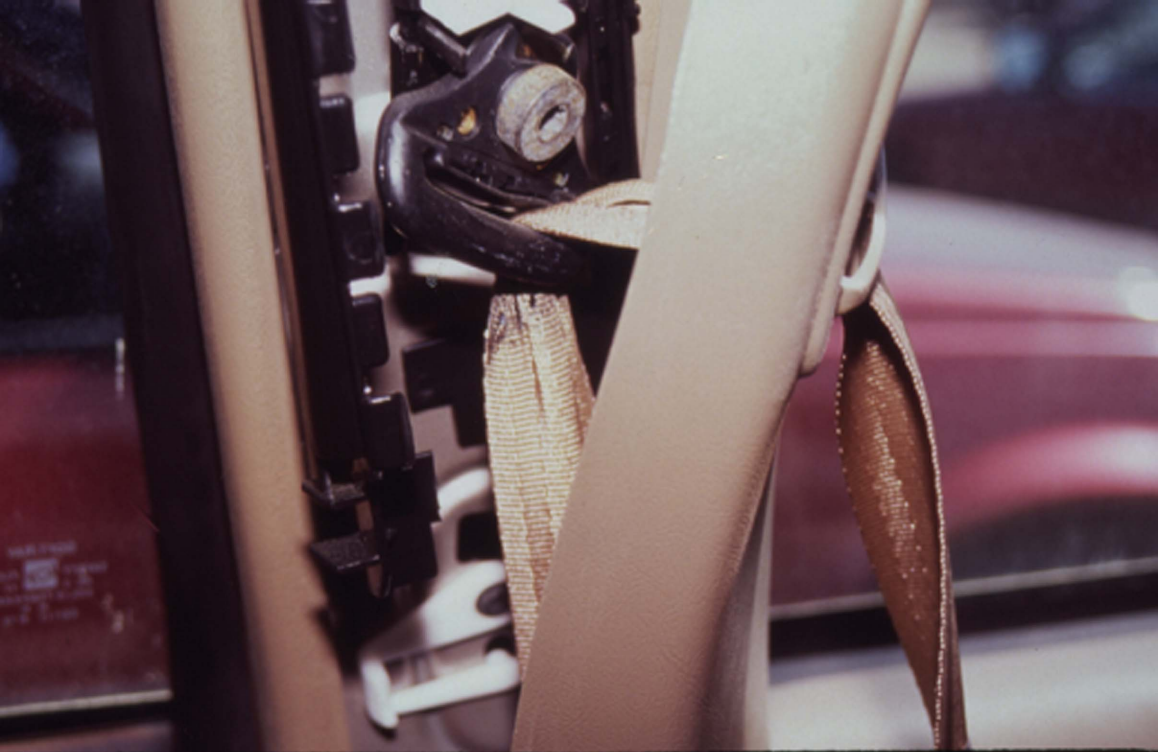




































































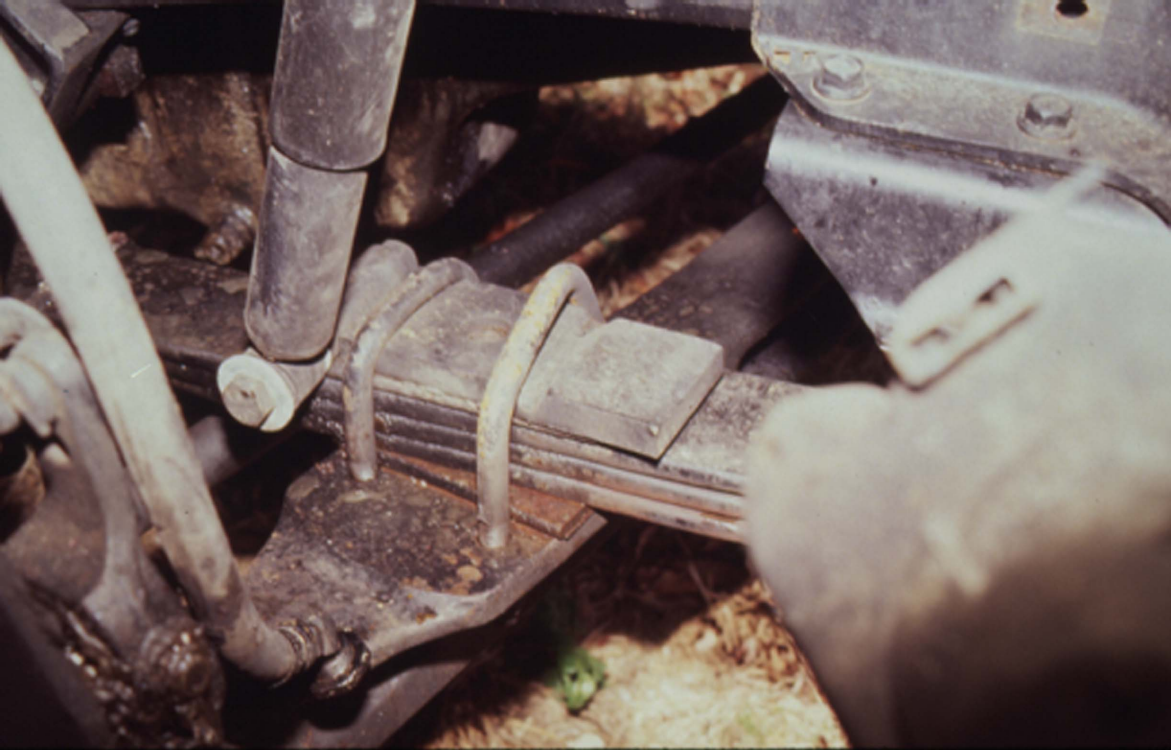


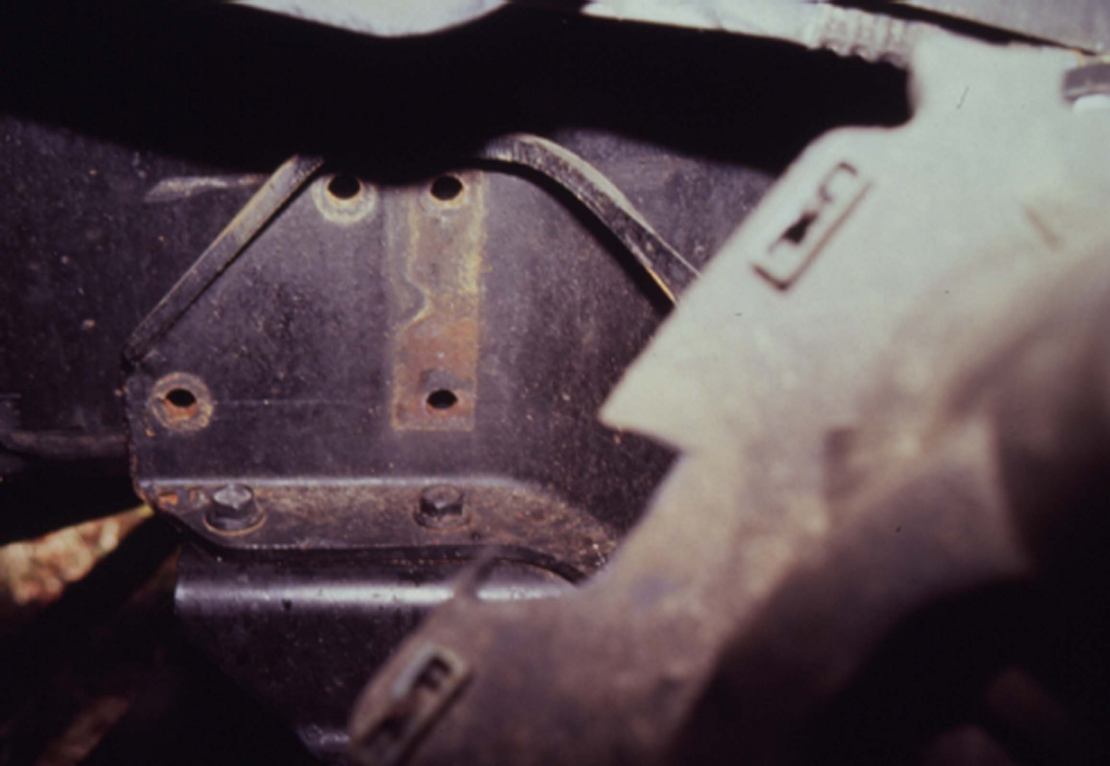












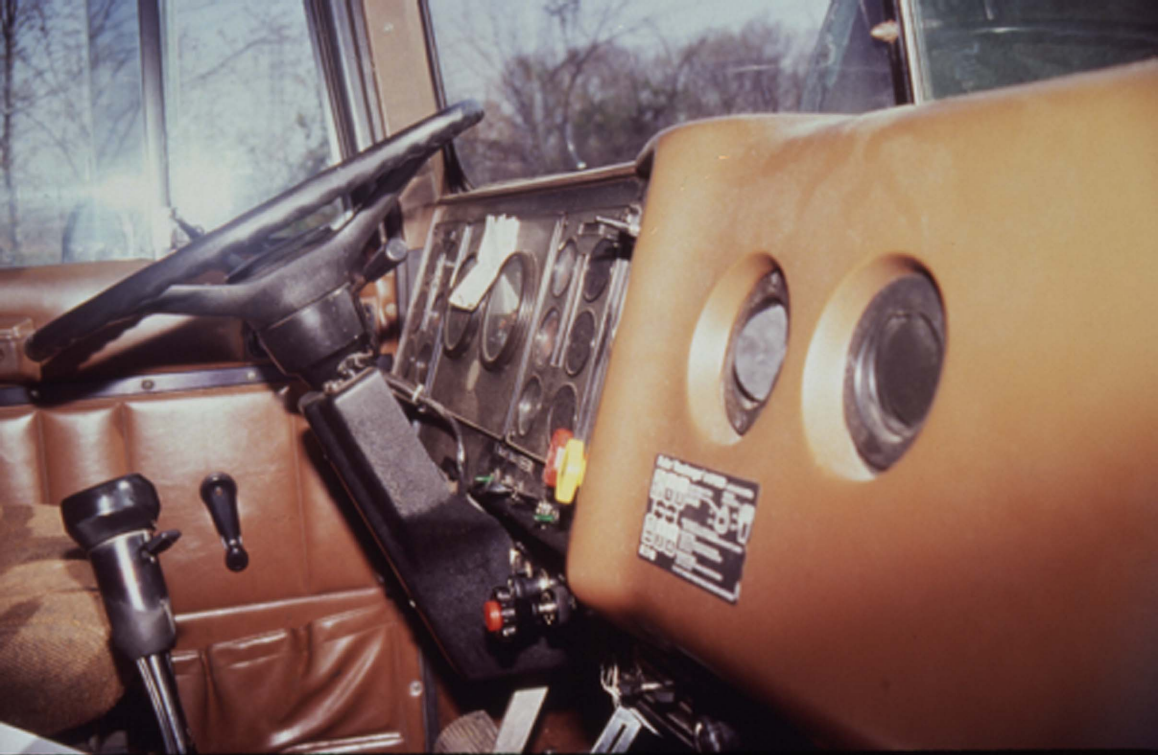






























## ACCIDENT FORM

<div style="border-bottom: 1px solid black; padding-bottom: 5px;">1. Primary Sampling Unit Number _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">2. Case Number - Stratum     <u>DSI-94-AB-010</u></div> <div style="background-color: black; color: white; text-align: center; padding: 5px;"><b>IDENTIFICATION</b></div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">3. Number of General Vehicle Forms Submitted     <u>02</u></div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">4. Date of Accident (Month,Day,Year)     <u>SPRING / WEEKDAY / 9 4</u></div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">5. Time of Accident     <u>EVENING</u></div> <div style="padding: 5px;">Code reported military time of accident.</div> <div style="padding: 5px;">NOTE: Midnight = 2400 Unknown = 9999</div>	<div style="background-color: black; color: white; text-align: center; padding: 5px;"><b>SPECIAL STUDIES - INDICATORS</b></div> <div style="padding: 5px;">Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">6. ____ SS15 Administrative Use _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">7. ____ SS16 Pedestrian Crash Data Study _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">8. ____ SS17 Impact Fires _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">9. ____ SS18 _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">10. ____ SS19 _____</div> <div style="background-color: black; color: white; text-align: center; padding: 5px;"><b>NUMBER OF EVENTS</b></div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">11. Number of Recorded Events in This Accident     <u>01</u></div> <div style="padding: 5px;">Code the number of events which occurred in this accident.</div>																																										
<b>ACCIDENT EVENTS</b>																																											
For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.																																											
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 12.5%;">Accident Event Sequence Number</th><th style="width: 12.5%;">Vehicle Number</th><th style="width: 12.5%;">Class Of Vehicle</th><th style="width: 12.5%;">General Area of Damage</th><th style="width: 12.5%;">Vehicle Number or Object Contacted</th><th style="width: 12.5%;">Class Of Vehicle</th><th style="width: 12.5%;">General Area of Damage</th></tr></thead><tbody><tr><td>12. <u>0 1</u></td><td>13. <u>01</u></td><td>14. <u>04</u></td><td>15. <u>F</u></td><td>16. <u>02</u></td><td>17. <u>24</u></td><td>18. <u>F</u></td></tr><tr><td>19. <u>0 2</u></td><td>20. _____</td><td>21. _____</td><td>22. _____</td><td>23. _____</td><td>24. _____</td><td>25. _____</td></tr><tr><td>26. <u>0 3</u></td><td>27. _____</td><td>28. _____</td><td>29. _____</td><td>30. _____</td><td>31. _____</td><td>32. _____</td></tr><tr><td>33. <u>0 4</u></td><td>34. _____</td><td>35. _____</td><td>36. _____</td><td>37. _____</td><td>38. _____</td><td>39. _____</td></tr><tr><td>40. <u>0 5</u></td><td>41. _____</td><td>42. _____</td><td>43. _____</td><td>44. _____</td><td>45. _____</td><td>46. _____</td></tr></tbody></table>		Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage	12. <u>0 1</u>	13. <u>01</u>	14. <u>04</u>	15. <u>F</u>	16. <u>02</u>	17. <u>24</u>	18. <u>F</u>	19. <u>0 2</u>	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____	26. <u>0 3</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____	33. <u>0 4</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____	40. <u>0 5</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____
Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage																																					
12. <u>0 1</u>	13. <u>01</u>	14. <u>04</u>	15. <u>F</u>	16. <u>02</u>	17. <u>24</u>	18. <u>F</u>																																					
19. <u>0 2</u>	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____																																					
26. <u>0 3</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____																																					
33. <u>0 4</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____																																					
40. <u>0 5</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____																																					
IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT																																											

## CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

## CODES FOR GENERAL AREA OF DAMAGE (GAD)

### CDS APPLICABLE AND OTHER VEHICLES

- (O) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

### TDC APPLICABLE VEHICLES

- (O) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

## CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

### (01-30) — Vehicle Number

#### Noncollision

- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): \_\_\_\_\_

(35) Noncollision injury

(38) Other noncollision (specify): \_\_\_\_\_

(39) Noncollision — details unknown

#### Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

#### Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify): \_\_\_\_\_

(69) Unknown fixed object

#### Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(72) Pedestrian

(73) Cyclist or cycle

(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(79) Object fell from vehicle in-transport

(88) Other nonfixed object (specify): \_\_\_\_\_

(89) Unknown nonfixed object

(98) Other event (specify): \_\_\_\_\_

(99) Unknown event or object



## GENERAL VEHICLE FORM

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSE-94-AB-010
3. Vehicle Number 01

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 94  
Code the last two digits of the model year  
(99) Unknown
5. Vehicle Make (specify): 18  
BUICK  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown
6. Vehicle Model (specify): 002  
LE SABRE  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown
7. Body Type 04  
Note: Applicable codes may be found on  
the back of this page.
8. Vehicle Identification Number  
1G4HR52L3RH  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nines

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown
10. Police Reported Travel Speed 999  
Code to the nearest kph (NOTE: 000 means  
less than 0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kph

11. Police Reported Alcohol Presence 9  
(0) No alcohol present  
(1) Yes (alcohol present)  
(7) Not reported  
(8) No driver present  
(9) Unknown

Note: See variables 37 through 55  
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: PAR

## ACCIDENT RELATED

13. Speed Limit 056  
(000) No statutory limit  
Code posted or statutory speed limit  
in kph  
(999) Unknown  
35 mph X 1.6093 = 056 kph
14. Attempted Avoidance Maneuver 09  
(01) No avoidance actions  
(02) Braking (no lockup)  
(03) Braking (lockup)  
(04) Braking (lockup unknown)  
(05) Releasing brakes  
(06) Steering left  
(07) Steering right  
(08) Braking and steering left  
(09) Braking and steering right  
(10) Accelerating  
(11) Accelerating and steering left  
(12) Accelerating and steering right  
(97) No driver present  
(98) Other action (specify): \_\_\_\_\_  
(99) Unknown
15. Accident Type 69  
Applicable codes may be found on the  
back of page two of this field form  
(00) No impact  
Code the number of the diagram that  
best describes the accident circumstance  
(98) Other accident type (specify): \_\_\_\_\_  
(99) Unknown

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*



# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_
- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 4,500$ kgs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,500$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,500$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,500$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,500$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500,)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 4,500$ kgs GVWR)

- (60) Step van ( $> 4,500$  kgs GVWR)
- (61) Single unit straight truck ( $4,500$  kgs  $<$  GVWR  $\leq 8,850$  kgs)
- (62) Single unit straight truck ( $8,850$  kgs  $<$  GVWR  $\leq 12,000$  kgs)
- (63) Single unit straight truck ( $> 12,000$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

## OCCUPANT RELATED

16. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
17. Number of Occupants This Vehicle 4  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
18. Number of Occupant Forms Submitted 4

24. Rollover 4  
 (0) No rollover (no overturning)
- Rollover (primarily about the longitudinal axis)*  
 (1) Rollover, 1 quarter turn only  
 (2) Rollover, 2 quarter turns  
 (3) Rollover, 3 quarter turns  
 (4) Rollover, 4 or more quarter turns (specify):  
 \_\_\_\_\_
- (5) Rollover--end-over-end (i.e., primarily about the lateral axis)  
 (9) Rollover (overturn), details unknown

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight 1,560  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (045) Less than 450 kilograms  
 (610) 6,100 kilograms or more  
 (999) Unknown
- 3,449 lbs X .4536 = 1,564 kgs
- Source: \_\_\_\_\_
20. Vehicle Cargo Weight 0  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (450) 4,500 kilograms or more  
 (999) Unknown
- \_\_\_\_\_, \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_, \_\_\_\_\_ kgs

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) 4
26. Rear Override/Underride (this Vehicle) 4
- (0) No override/underride, or not an end-to-end impact
- Override (see specific CDC)*  
 (1) 1st CDC  
 (2) 2nd CDC  
 (3) Other not automated CDC (specify):  
 \_\_\_\_\_
- Underride (see specific CDC)*  
 (4) 1st CDC  
 (5) 2nd CDC  
 (6) Other not automated CDC (specify):  
 \_\_\_\_\_
- (7) Medium/heavy truck or bus override  
 (9) Unknown

## RECONSTRUCTION DATA

21. Towed Trailing Unit 4  
 (0) No towed unit  
 (1) Yes--towed trailing unit  
 (9) Unknown
22. Documentation of Trajectory Data for This Vehicle 4  
 (0) No  
 (1) Yes
23. Post Collision Condition of Tree or Pole (For Highest Delta V) 4  
 (0) Not collision (for highest delta V) with tree or pole  
 (1) Not damaged  
 (2) Cracked/sheared  
 (3) Tilted <45 degrees  
 (4) Tilted ≥45 degrees  
 (5) Uprooted tree  
 (6) Separated pole from base  
 (7) Pole replaced  
 (8) Other (specify):  
 \_\_\_\_\_  
 (9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

- Values: (000)-(359) Code actual value  
 (997) Noncollision  
 (998) Impact with object  
 (999) Unknown
27. Heading Angle For This Vehicle 145
28. Heading Angle For Other Vehicle 280

Category	Configuration	ACCIDENT TYPES (Includes Intent)									
I. Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN					
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN					
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN				
II. Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21, 22, 23	 21 22, 23	 24 SLOWER 25, 26, 27	 25 26, 27	 28 DECEL. 29, 30, 31	 29 30, 31	(EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN		
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 35 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 37 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 39 AVOID COLLISION WITH OBJECT	 40 AVOID COLLISION WITH OBJECT	 41 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44 45	 46 45, 47	 45 47	 47	(EACH • 48) SPECIFICS OTHER		(EACH • 49) SPECIFICS UNKNOWN			
III. Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	 51 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER		(EACH • 53) SPECIFICS UNKNOWN					
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 55 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 57 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 59 AVOID COLLISION WITH OBJECT	 60 AVOID COLLISION WITH OBJECT	 61 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	 65 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER		(EACH • 67) SPECIFICS UNKNOWN					
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 69 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 72 INITIAL SAME DIRECTIONS	 73 INITIAL SAME DIRECTIONS	(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN		
	K. Turn Into Path	 76 TURN INTO SAME DIRECTION	 77 TURN INTO SAME DIRECTION	 78 TURN INTO SAME DIRECTION	 79 TURN INTO SAME DIRECTION	 80 TURN INTO OPPOSITE DIRECTIONS	 81 TURN INTO OPPOSITE DIRECTIONS	 82 TURN INTO OPPOSITE DIRECTIONS	 83 TURN INTO OPPOSITE DIRECTIONS	(EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN
V. Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER		(EACH • 91) SPECIFICS UNKNOWN					
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	98 Other Accident Type		99 Unknown Accident Type		00 No Impact			

29. Basis for Total Delta V (highest) 1*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

*Delta V Not Calculated*

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

**COMPUTER GENERATED DELTA V**

30. Total Delta V

Highest

0 3 9  
(24 mph)39.1 Nearest kph (highest)  
(24.3 mph)

Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown

31. Longitudinal Component of Delta V

+  
0 3 9  
(-24 mph)-39.4 Nearest kph (highest)  
(-24.2 mph)

Nearest kph (secondary)

(NOTE: 000 means greater than -0.5 kph and less than +0.5 kph)  
(±160) ±159.5 kph and above  
(999) Unknown

Highest

32. Lateral Component of Delta V +3.4 Nearest kph (highest)  
(2.1 mph)

Nearest kph (secondary)

(NOTE: 000 means greater than -0.5 kph and less than +0.5 kph)  
(±160) ±159.5 kph and above  
(999) Unknown

33. Energy Absorption

1 0 7 0 0  
(79,444 ft/lbs)107,000 Nearest 100 joules (highest)  
(78,915.3 ft/lbs)

Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)  
(9997) 999,650 joules or more  
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [X] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO



## 37. Police Reported Other Drug Presence

7

- (0) No other drug(s) present
- (1) Yes [other drug(s) present]
- (7) Not reported
- (8) No driver present
- (9) Unknown

## 38. Police Reported Drug Evaluation Classification (DEC) Test For Driver

φ

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

## 39. Other Drug Specimen Test Type For Driver

φ

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify):

- 
- (7) Unspecified specimen test
  - (8) No driver present
  - (9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION

### OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <u>φ</u>	41. <u>φ</u>
Depressant Drug	42. <u>φ</u>	43. <u>φ</u>
Stimulant Drug	44. <u>φ</u>	45. <u>φ</u>
Hallucinogen Drug	46. <u>φ</u>	47. <u>φ</u>
Cannabinoid Drug	48. <u>φ</u>	49. <u>φ</u>
Phencyclidine (PCP)	50. <u>φ</u>	51. <u>φ</u>
Inhalant Drug	52. <u>φ</u>	53. <u>φ</u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>φ</u>	55. <u>φ</u>

## Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

## Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given

**OTHER DATA**56. Driver's Zip Code                     

- (00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
             Code actual 5-digit zip code  
 (99999) Unknown

57. Driver's Race/Ethnic Origin   1  

- (0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

58. Vehicle Special Use (This Trip)   φ  

- (0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Fire truck or car  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

**ROLLOVER DATA**

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type   φ  

- (0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type specify): \_\_\_\_\_  
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation   φ  

- (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

61. Rollover Initiation Object Contacted   φ  φ  62. Location on Vehicle Where Initial Principal Tripping Force Is Applied   φ  

- (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (8) Non-contact rollover forces (specify): \_\_\_\_\_  
 (9) Unknown

63. Direction of Initial Roll   φ  

- (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

**PRECRASH DATA**64. Pre-Event Movement (Prior to Recognition of Critical Event)   φ  1  

- (01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify): \_\_\_\_\_  
 (98) No driver present  
 (99) Unknown

## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

### Noncollision

- (31) Turn-over — fall-over
- (33) Jackknife

### Collision With Fixed Object

- (41) Tree ( $\leq 10$  cm in diameter)
- (42) Tree ( $> 10$  cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post ( $\leq 10$  cm in diameter)
- (51) Pole or post ( $> 10$  cm but  $\leq 30$  cm in diameter)
- (52) Pole or post ( $> 30$  cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): \_\_\_\_\_

- (69) Unknown fixed object

### Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): \_\_\_\_\_

- (89) Unknown nonfixed object

- (98) Other event (specify): \_\_\_\_\_

- (99) Unknown event or object

## PRECRASH DATA (Continued)

65. Critical Precrash Event 6 2*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

For Corrective Actions Attempted see variable GV14  
(Attempted Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 1

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 1

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



National Highway Traffic Safety  
Administration

## EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number \_\_\_\_\_

3. Vehicle Number

01

2. Case Number - Stratum

DSI-94-4B-010

## VEHICLE IDENTIFICATION

VIN 1G4HR52L3RH ~~XXXXXXXXXX~~Model Year 94Vehicle Make (specify): BUICKVehicle Model (specify): LESABRE LIMITED 4-DOOR

## LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
<u>01</u>	<u>BEGINS LEFT FRONT BUMPER CORNER</u>	<u>FULL FRONTAL</u>

## CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

\* U.S. EQUIVALENTS \*

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage		Field L	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	±D
		Width (CDC)	Max Crush								
<u>01</u>	<u>FRONT BUMPER</u>	<u>61.0 in</u>	<u>35.3 in</u>	<u>59.1 in</u>	<u>35.3 in</u>	<u>28.9 in</u>	<u>28.0 in</u>	<u>26.5 in</u>	<u>12.2 in</u>	<u>22.2 in</u>	<u>0</u>
	<u>- FREE SPACE</u>		<u>4.5 in</u>		<u>4.5 in</u>	<u>3.1 in</u>	<u>1.2 in</u>	<u>1.2 in</u>	<u>3.1 in</u>	<u>4.5 in</u>	
	<u>- BUMPER</u>		<u>8.7 in</u>		<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	<u>3.1 in</u>	<u>8.7 in</u>	
	<u>- RADIATOR</u>		<u>0</u>		<u>0</u>	<u>0</u>	<u>2.4 in</u>	<u>2.4 in</u>	<u>0</u>	<u>0</u>	
	<u>- FREE SPACE</u>										
	<u>RESULTANT</u>		<u>22.1 in</u>		<u>22.1 in</u>	<u>17.1 in</u>	<u>15.7 in</u>	<u>14.2 in</u>	<u>6.4 in</u>	<u>9.0 in</u>	
			<u>@C<sub>1</sub></u>								
<u>01</u>	<u>RADIATOR SUPPORT</u>	<u>61.0 in</u>	<u>36.8 in</u>	<u>59.1 in</u>	<u>37.4 in</u>	<u>36.4 in</u>	<u>36.8 in</u>	<u>36.4 in</u>	<u>31.7 in</u>	<u>27.3 in</u>	<u>0</u>
	<u>- FREE SPACE</u>		<u>1.2 in</u>		<u>4.5 in</u>	<u>3.1 in</u>	<u>1.2 in</u>	<u>1.2 in</u>	<u>3.1 in</u>	<u>4.5 in</u>	
	<u>- BUMPER</u>		<u>8.7 in</u>		<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	<u>8.7 in</u>	
	<u>RESULTANTS</u>		<u>26.9 in</u>		<u>24.2 in</u>	<u>24.2 in</u>	<u>26.9 in</u>	<u>26.5 in</u>	<u>19.9 in</u>	<u>14.1 in</u>	
			<u>@C<sub>3</sub></u>								
	<u>AVERAGE</u>		<u>-</u>		<u>-</u>	<u>20.7 in</u>	<u>21.3 in</u>	<u>20.4 in</u>	<u>13.0 in</u>	<u>11.6 in</u>	

# ORIGINAL SPECIFICATIONS WORK SHEET

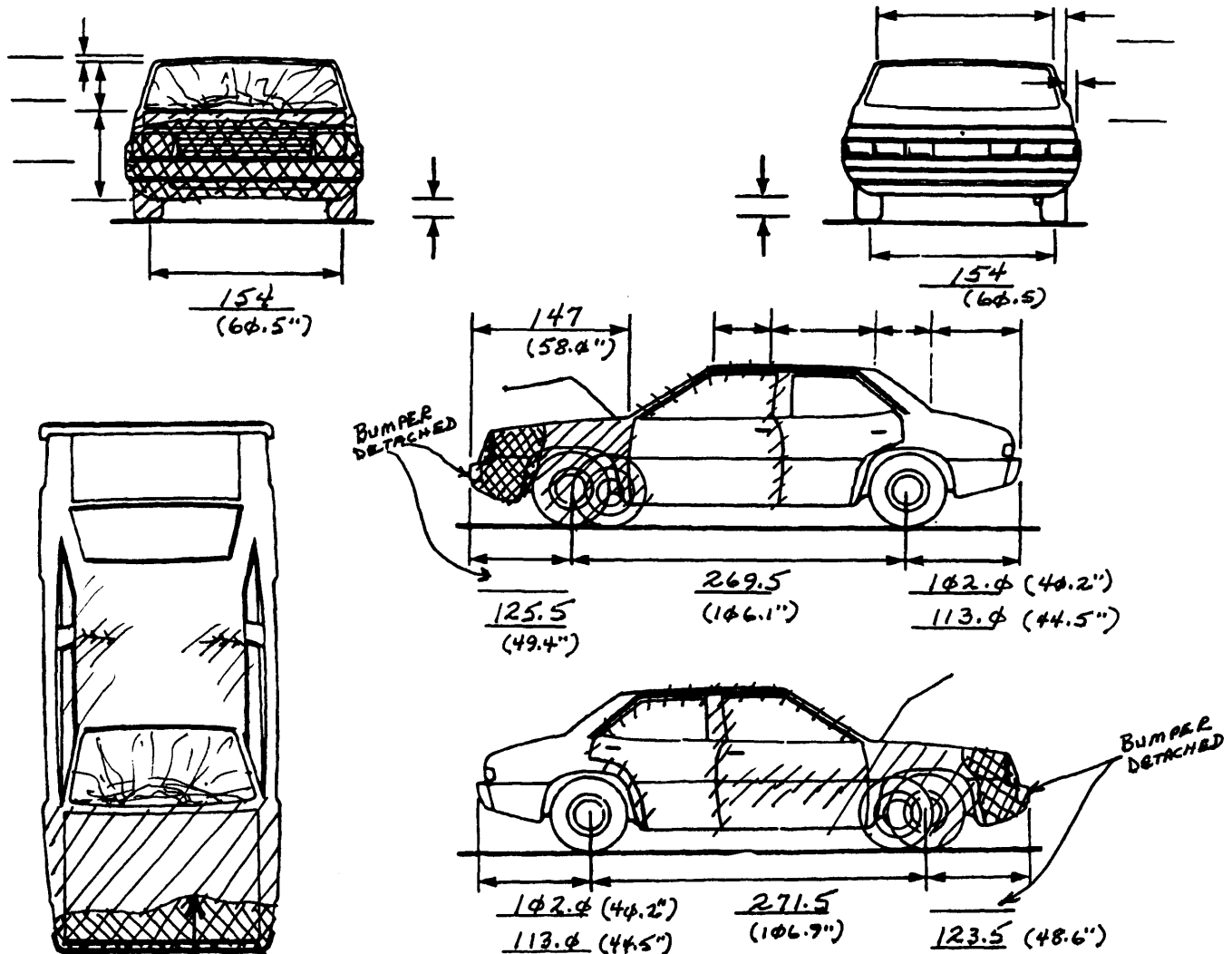
Wheelbase	<u>1</u> <u>1</u> <u>0</u> <u>8</u> inches	x 2.54 =	<u>2</u> <u>8</u> <u>1</u> cm
Overall Length	<u>2</u> <u>0</u> <u>0</u> <u>0</u> inches	x 2.54 =	<u>5</u> <u>0</u> <u>8</u> cm
Maximum Width	<u>0</u> <u>7</u> <u>3</u> <u>6</u> inches	x 2.54 =	<u>1</u> <u>8</u> <u>7</u> cm
Curb Weight	<u>0</u> <u>3</u> <u>4</u> <u>4</u> <u>9</u> pounds	x .4536 =	<u>1</u> <u>5</u> <u>6</u> <u>4</u> kg
Average Track	<u>0</u> <u>6</u> <u>0</u> <u>4</u> inches	x 2.54 =	<u>1</u> <u>5</u> <u>3</u> cm
Front Overhang	<u>0</u> <u>4</u> <u>4</u> <u>9</u> inches	x 2.54 =	<u>1</u> <u>1</u> <u>4</u> cm
Rear Overhang	<u>0</u> <u>4</u> <u>4</u> <u>5</u> inches	x 2.54 =	<u>1</u> <u>1</u> <u>3</u> cm
Undeformed End Width	<u>0</u> <u>6</u> <u>1</u> <u>0</u> inches	x 2.54 =	<u>1</u> <u>5</u> <u>5</u> cm
Engine Size: cyl./displ.	<u>3</u> <u>0</u> <u>0</u> <u>0</u> cc	x .001 =	<u>3</u> <u>0</u> L
	<u>2</u> <u>3</u> <u>2</u> CID	x .0164 =	<u>3</u> <u>0</u> L

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted RF <u>1</u> LF <u>1</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>281</u> cm Overall Length <u>508</u> cm Maximum Width <u>187</u> cm Curb Weight <u>1,564</u> kg Average Track <u>153</u> cm Front Overhang <u>114</u> cm Rear Overhang <u>113</u> cm Undeformed End Width <u>155</u> cm Engine Size: cyl./displ. <u>V6/3.8</u> L		<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF ± <u>0</u> ° LF ± <u>0</u> ° RR ± <u>0</u> ° LR ± <u>0</u> ° Within ± 5 degrees
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		<b>DRIVE WHEELS</b> <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD		
		Approximate Cargo Weight <u>0</u> kg		

GAUGE STANDS AT OL

## MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.





## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>0 1</u>	5. <u>0 2</u>	6. <u>1 2</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>0 3</u>

## Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	22. <u>± D</u>
<u>1 5 5</u> (61")	<u>0 5 6</u> (22")	<u>0 5 3</u> (21")	<u>0 5 4</u> (21")	<u>0 5 2</u> (20")	<u>0 3 3</u> (13")	<u>0 3 0</u> (12")	<u>+ 0 0 0</u>

## Second Highest Delta "V"

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	25. <u>± D</u>
_____	_____	_____	_____	_____	_____	_____	<u>+ _____</u> <u>- _____</u>

26. Are CDCs Documented but Not Coded on The Automated File? 0  
(0) No  
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

28. Original Wheelbase 2 8 1  
\_\_\_\_\_ Code to the nearest centimeter  
(999) Unknown

$$1 1 0 . 8 \text{ inches} \times 2.54 = 2 8 1 \text{ centimeters}$$

29. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle?

φ

- (0) No post manufacturer modifications  
(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

(Include photograph of CERTIFICATION  
PLACARD in case report)

- (9) Unknown if vehicle is modified

30. Fire Occurrence

φ

- (0) No fire

Yes, fire occurred

- (1) Minor  
(2) Major  
(9) Unknown

31. Origin of Fire

φ

- (0) No fire  
(1) Vehicle exterior (front, side, back, top)  
(2) Exhaust system  
(3) Fuel tank (and other fuel retention  
system parts)  
(4) Engine compartment  
(5) Cargo/trunk compartment  
(6) Instrument panel  
(7) Passenger compartment area  
(8) Other location (specify): \_\_\_\_\_

- (9) Unknown

32. Type of Fuel Tank-1

1

33. Type of Fuel Tank-2

φ

- (0) No fuel tank (electrical vehicle)  
(1) Metallic  
(2) Non-metallic  
(9) Unknown

34. Fuel Tank-1 Location

1

35. Fuel Tank-2 Location

φ

- (0) No fuel tank  
(1) Aft of center of the rear wheels (rear axle)  
centered  
(2) Aft of center of the rear wheels (rear axle) left  
side  
(3) Aft of center of the rear wheels (rear axle)  
right side  
(4) Forward of center of the rear wheels (rear  
axle) centered  
(5) Forward of center of the rear wheels (rear  
axle) left side  
(6) Forward of center of the rear wheels (rear  
axle) right side  
(7) Over center of the rear wheels (rear axle)  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

36. Fuel Tank-1 Filler Cap Location

2

37. Fuel Tank-2 Filler Cap Location

φ

- (0) No fuel tank  
(1) On back plane  
(2) Aft of center of the rear wheels (rear axle) on  
left side plane  
(3) Aft of center of the rear wheels (rear axle) on  
right side plane  
(4) Forward of center of the rear wheels (rear  
axle) on left side plane  
(5) Forward of center of the rear wheels (rear  
axle) on right side plane  
(6) Over the center of the rear wheels (rear axle)  
on left side plane  
(7) Over the center of the rear wheels (rear axle)  
on right side plane  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

38. Fuel Tank-1 Damage

1

39. Fuel Tank-2 Damage

φ

- (0) No fuel tank  
(1) No damage to fuel tank  
(2) Deformed, no seam failure  
(3) Deformed, with a seam failure  
(4) Punctured  
(5) Lacerated (ripped)  
(6) Abraded (scraped)  
(7) Filler neck separation from the fuel tank  
(8) Other damage (specify): \_\_\_\_\_  
(9) Unknown

<p>40. Location of Fuel System-1 Leakage <span style="float: right;"><u>1</u></span></p> <p>41. Location of Fuel System-2 Leakage <span style="float: right;"><u>ϕ</u></span></p> <p style="margin-left: 20px;">(0) No fuel tank (1) No fuel leakage</p> <p><i>Primary Area Of Leakage</i></p> <p>(2) Tank (3) Filler neck (4) Cap (5) Lines/pump/filter (6) Vent/emission recovery (8) Other (specify): _____</p> <p>(9) Unknown</p> <p>42. Fuel Type-1 <span style="float: right;"><u>ϕ 1</u></span></p> <p>43. Fuel Type-2 <span style="float: right;"><u>ϕ ϕ</u></span></p> <p><i>Single Fuel Type</i></p> <p>(00) No fuel tank (01) Gasoline (02) Diesel (03) CNG (Compressed Natural Gas) (04) LPG (Liquid Petroleum Gas) also known as Propane (05) LNG (Liquid Natural Gas) (06) Methanol (M100 or M85) (07) Ethanol (E100 or E85) (08) Other (Hydrogen or others) (specify): _____</p> <p>_____ _____</p> <p><i>Electric Powered or Electric/Solar Powered Vehicles</i></p> <p>(10) Lead Acid Battery (11) Nickel-Iron Battery (12) Nickel-Cadmium Battery (13) Sodium Metal Chloride Battery (14) Sodium Sulfur Battery (18) Other (Specify): _____</p> <p>(98) Other Hybrid (specify): _____</p> <p>_____ _____</p> <p>(99) Unknown fuel type</p>	<p>44. Is This Vehicle Equipped With More Than Two Fuel Tanks? <span style="float: right;"><u>ϕ</u></span></p> <p>(0) No (one or two tanks only)</p> <p><i>Yes - More Than Two Tanks</i></p> <p>(1) Yes -- <u>no damage</u> to any tank or filler cap and <u>no fuel system leakage</u></p> <p>(2) Yes -- <u>no damage</u> to any tank or filler cap but <u>there is fuel system leakage</u> (specify leakage location): _____</p> <p>(3) Yes -- <u>damage</u> to an additional tank or filler cap and <u>there is fuel system leakage</u> (specify the following):  Type of tank _____  Tank location _____  Filler cap location _____  Tank damage _____  Location of leakage _____  Type of fuel _____</p> <p>(9) Unknown if more than two tanks</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px 0;"> <b>COMMENTS</b> </div> <div style="border: 1px solid black; height: 150px; margin: 0 0 0 10px;"></div>
---	--

\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS \*\*\*  
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



## INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number \_\_\_\_\_

2. Case Number - Stratum DSI-94-A3-6103. Vehicle Number 01

## INTEGRITY

4. Passenger Compartment Integrity 00 00

(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield  
(02) Door (side)  
(03) Door/hatch (back door)  
(04) Roof  
(05) Roof glass  
(06) Side window  
(07) Rear window (backlight)  
(08) Roof and roof glass  
(09) Windshield and door (side)  
(10) Windshield and roof  
(11) Side and rear window (side window and backlight)  
(12) Windshield and side window  
(13) Door and side window  
(98) Other combination of above (specify): \_\_\_\_\_

(99) Unknown

## Door, Tailgate or Hatch Opening

5. LF / 6. RF / 7. LR / 8. RR / 9. TG/H 0

- (0) No door/gate/hatch  
(1) Door/gate/hatch remained closed and operational  
(2) Door/gate/hatch came open during collision  
(3) Door/gate/hatch jammed shut  
(8) Other (specify): \_\_\_\_\_

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch  
Opening in Collision. If IV05-IV09  $\neq$  2, Then code 010. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)  
(2) Latch/striker failure due to damage  
(3) Hinge failure due to damage  
(4) Door structure failure due to damage  
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage  
(6) Latch/striker and hinge failure due to damage  
(8) Other failure (specify): \_\_\_\_\_

(9) Unknown

## GLAZING

## Glazing Damage from Impact Forces

15. WS 2 16. LF 0 17. RF 0 18. LR 0 19. RR 0  
20. BL 0 21. Roof 0 22. Other 0

- (0) No glazing damage from impact forces  
(2) Glazing in place and cracked from impact forces  
(3) Glazing in place and holed from impact forces  
(4) Glazing out-of-place (cracked or not) and not holed from impact forces  
(5) Glazing out-of-place and holed from impact forces  
(6) Glazing disintegrated from impact forces  
(7) Glazing removed prior to accident  
(8) No glazing  
(9) Unknown if damaged

## Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0  
28. BL 0 29. Roof 0 30. Other 0

- (0) No occupant contact to glazing or no glazing  
(1) Glazing contacted by occupant but no glazing damage  
(2) Glazing in place and cracked by occupant contact  
(3) Glazing in place and holed by occupant contact  
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact  
(5) Glazing out-of-place by occupant contact and holed by occupant contact  
(6) Glazing disintegrated by occupant contact  
(9) Unknown if contacted by occupant

If No Glazing Damage **And** No Occupant Contact or No  
Glazing, Then Code IV31 Through IV46 As 0

## Type of Window/Windshield Glazing

31. WS / 32. LF 0 33. RF 0 34. LR 0 35. RR 0  
36. BL 0 37. Roof 0 38. Other 0

- (0) No glazing contact and no damage, or no glazing  
(1) AS-1 — Laminated  
(2) AS-2 — Tempered  
(3) AS-3 — Tempered-tinted  
(4) AS-14 — Glass/Plastic  
(8) Other (specify): \_\_\_\_\_

(9) Unknown

## Window Precrash Glazing Status

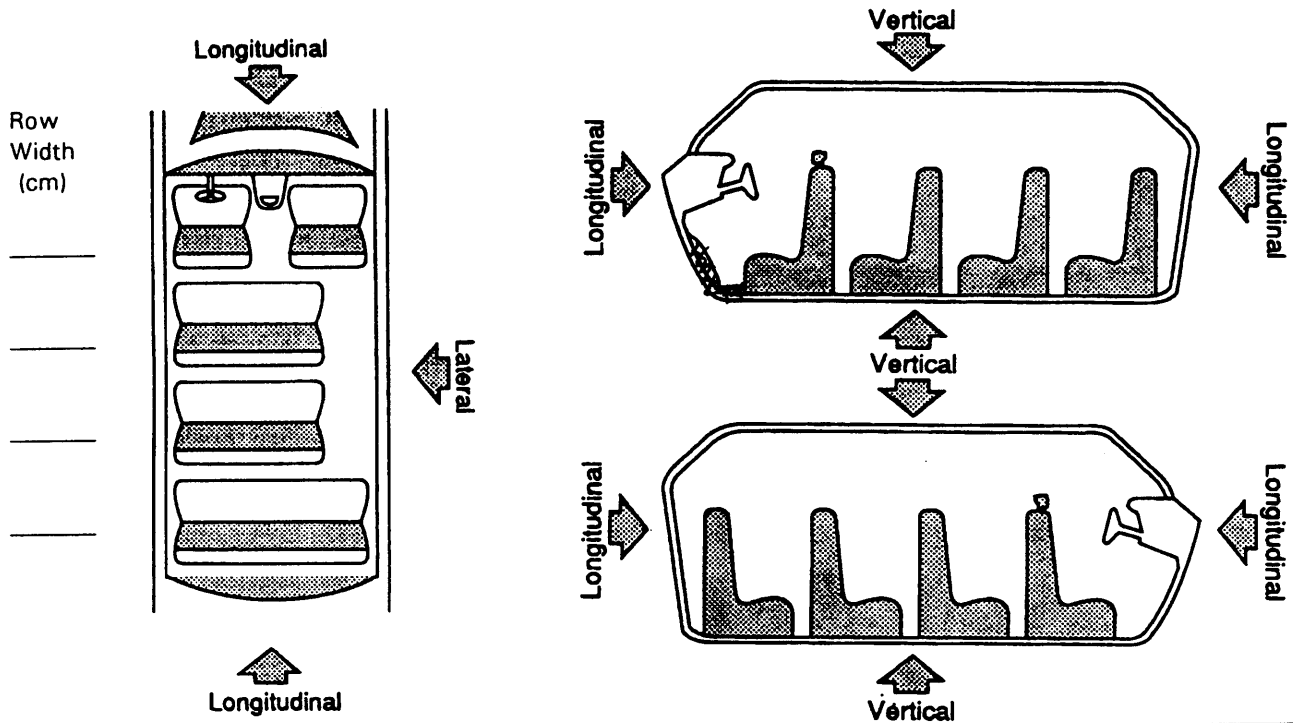
39. WS / 40. LF 0 41. RF 0 42. LR 0 43. RR 0  
44. BL 0 45. Roof 0 46. Other 0

- (0) No glazing contact and no damage, or no glazing  
(1) Fixed  
(2) Closed  
(3) Partially opened  
(4) Fully opened  
(9) Unknown



# INTRUSION WORKSHEET

**Note: Sketch intruded areas**

[illegible]

**Document no more than the 15 most severe intrusions**

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

## INTRUDING COMPONENT

*Interior Components*

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

*Exterior Components*

- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

## LOCATION OF INTRUSION

## Front Seat

- (11) Left
- (12) Middle
- (13) Right

## Fourth Seat

- (41) Left
- (42) Middle
- (43) Right

## Second Seat

- (21) Left
- (22) Middle
- (23) Right

- (97) Catastrophic
- (98) Other enclosed area (specify)

(99) Unknown

## Third Seat

- (31) Left
- (32) Middle
- (33) Right

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

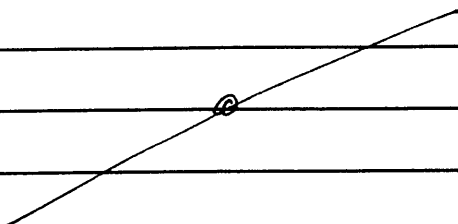
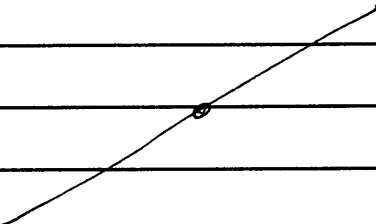
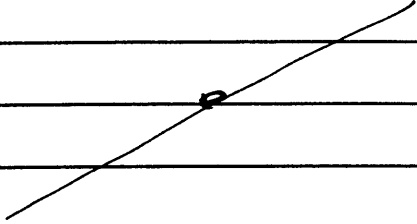
- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>1</u> <u>1</u>	48. <u>6</u> <u>5</u>	49. <u>2</u>	50. <u>2</u>
2nd	51. <u>1</u> <u>1</u>	52. <u>1</u> <u>7</u>	53. <u>1</u>	54. <u>1</u>
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE      —      DAMAGE VALUE      =      DEFORMATION

	—		=	
	—		=	
	—		=	
	—		=	

**STEERING COLUMN**87. Steering Column Type 2

- (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

88. Blank X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

89. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

90. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

91. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

92. Steering Rim/Spoke Deformation φ φ

- \_\_\_\_\_ Code actual measured deformation to the nearest centimeter  
 (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown

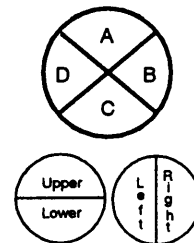
93. Location of Steering Rim/Spoke Deformation φ φ*Quarter Sections*

- (01) Section A  
 (02) Section B  
 (03) Section C  
 (04) Section D

*Half Sections*

- (05) Upper half of rim/spoke  
 (06) Lower half of rim/spoke  
 (07) Left half of rim/spoke  
 (08) Right half of rim/spoke

- (09) Complete steering wheel collapse  
 (10) Undetermined location  
 (99) Unknown

**INSTRUMENT PANEL**94. Odometer Reading φ φ 1,000

\_\_\_\_\_ kilometers—Code to the nearest 1,000 kilometers

- (000) No odometer  
 (001) Less than 1,500 kilometers  
 (500) 499,500 kilometers or more  
 (999) Unknown

φ φ φ 822 miles X 1.6093 = φ φ 1.334 kilometers

Source: INSPECTION

95. Instrument Panel Damage from Occupant Contact? 1

- (0) No  
 (1) Yes  
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? 8

- (0) No  
 (1) Yes  
 (8) Not present  
 (9) Unknown

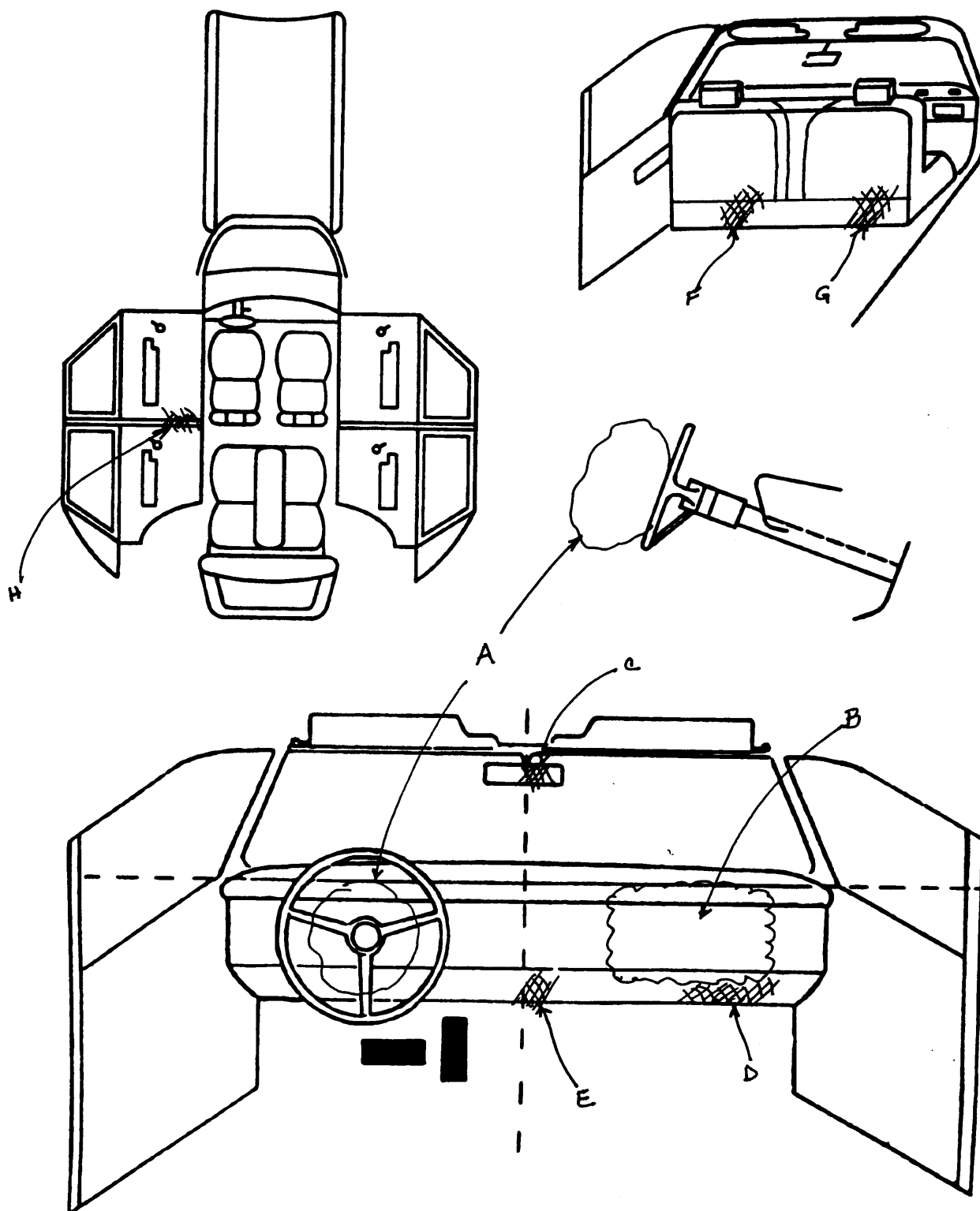
97. Did Glove Compartment Door Open During Collision(s)? 1

- (0) No  
 (1) Yes  
 (8) Not present  
 (9) Unknown



## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	45	01	FACE	AIR BAG DEPLOYED / BLOOD	1
B	45	02	FACE	AIR BAG DEPLOYED / LIP STICK / MAKE UP	1
C	02	02	R. ARM	DISALACED / CRACKED / BODY OIL	2
D	11	02	R. KNEE / LEG	DEFORMATION / ABRADED	1
E	10	02	L. ARM / TORSO	DEFORMATION / ABRADED	1
F	40	03	R. LEG	DEFORMATION	2
G	40	04	R. LEG	DEFORMATION	3
H	23	03	L. LEG	ABRADED	1
I	41	01	TORSO	PUCKERING / LOAD MARKS / INJURIES	1
J	41	01	ABDOMEN	LOAD MARKS / INJURIES	1
K					
L					
M					
N					

## CODES FOR INTERIOR COMPONENTS

## FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar

- (23) Left B-pillar
- (24) Other left pillar (specify): \_\_\_\_\_
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_
- (28) Left side window sill

## RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_
- (38) Right side window sill

## INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)

- (46) Other occupants (specify): \_\_\_\_\_

- (47) Interior loose objects
- (48) Child safety seat (specify): \_\_\_\_\_
- (49) Other interior object (specify): \_\_\_\_\_

## ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

## FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

## REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## AUTOMATIC RESTRAINTS

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

### AIR BAGS

		Left	Right
F I R S T	Availability/Function	/	/
	Deployment	/	/
	Failure	/	/

#### Air Bag System Availability/Function

- (0) Not equipped/not available
- (1) Air bag
- Non-functional*
- (2) Air bag disconnected (specify): \_\_\_\_\_
- (3) Air bag not reinstalled
- (9) Unknown

#### Air Bag System Deployment

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

#### Are There Indications of Air Bag System Failure?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_
- (9) Unknown

### AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	ϕ	ϕ
	Use	ϕ	ϕ
	Type	ϕ	ϕ
	Proper Use	ϕ	ϕ
	Failure Modes	ϕ	ϕ

#### Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown
- Non-functional*
- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

#### Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative)
- (3) Automatic belt use unknown
- (9) Unknown

#### Automatic (Passive) Belt System Type

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

#### Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat
- Automatic Belt Used Improperly*
- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
- (8) Other improper use of automatic belt system (specify): \_\_\_\_\_
- (9) Unknown

#### Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other automatic belt failure (specify): \_\_\_\_\_
- (9) Unknown

## MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Evidence of usage	PUNCHING / LOOSE MARKS	—	—
	Used in this crash?	φ 4	φ φ	φ φ
	Proper Use	1	φ	φ
	Failure Modes	1	φ	φ
SECOND	Availability	4	3	4
	Evidence of usage	INJURY	—	—
	Used in this crash?	φ 3	φ φ	φ φ
	Proper Use	4	φ	φ
	Failure Modes	1	φ	φ
OTHER	Availability			
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			

**Manual (Active) Belt System Availability**

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

**Integral Belt Partially Destroyed**

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify):

(9) Unknown

**Manual (Active) Belt System Use**

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

**Proper Use of Manual (Active) Belts**

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

**Belt Used Improperly**

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

**Manual (Active) Belt Failure Modes During Accident**

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown



## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model						

Specify Below for Each Child Safety Seat

### 1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

### 2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):
- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

- (29) Unknown orientation

- (99) Unknown if child safety seat used

### 3. Child Safety Seat Harness Usage

### 4. Child Safety Seat Shield Usage

### 5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

### 6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

---



---



---



---

**HEAD RESTRAINTS/SEAT EVALUATION**

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	φ	3
	Seat Type	φ 6	φ 6	φ 6
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
SECOND	Head Restraint Type/Damage	φ	φ	φ
	Seat Type	φ 3	φ 3	φ 3
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

**Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**Seat Type (this Occupant Position)**

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type) \_\_\_\_\_  
 (99) Unknown

**Seat Performance (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): 4 and 5 \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**Seat Orientation (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION**      No [☒]      Yes [ ☐ ]

Describe indications of ejection and body parts involved in partial ejection(s):

---



---



---



---

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

(9) Unknown

**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT**      No [☒]      Yes [ ☐ ]

Describe entrapment mechanism: \_\_\_\_\_

---



---



---



---

Component(s): \_\_\_\_\_

(Note in vehicle interior diagram)

National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-94-AB-010
3. Vehicle Number 01
4. Occupant Number 01

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 7 0  
Code actual age at time of accident.  
(00) Less than one year old (specify by month): \_\_\_\_\_  
(97) 97 years and older \_\_\_\_\_  
(99) Unknown
6. Occupant's Sex 1  
(1) Male  
(2) Female  
(9) Unknown
7. Occupant's Height 1 8 0  
Code actual height to the nearest centimeter.  
(999) Unknown  
1 1 inches X 2.54 = 1 8 0 centimeters
8. Occupant's Weight 0 8 8  
Code actual weight to the nearest kilogram.  
(999) Unknown  
1 9 5 pounds X .4536 = 0 8 8 kilograms
9. Occupant's Role 1  
(1) Driver  
(2) Passenger  
(9) Unknown

10. Occupant's Seat Position 1 1  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify): \_\_\_\_\_  
(15) On or in the lap of another occupant
- Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify): \_\_\_\_\_  
(25) On or in the lap of another occupant
- Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify): \_\_\_\_\_  
(35) On or in the lap of another occupant
- Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify): \_\_\_\_\_  
(45) On or in the lap of another occupant  
(97) In or on unenclosed area  
(98) Other seat (specify): \_\_\_\_\_  
(99) Unknown
11. Occupant's Posture 0  
(0) Normal posture
- Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front of seat  
(8) Other abnormal posture (specify): \_\_\_\_\_  
(9) Unknown



## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

18. Manual (Active) Belt System Use 4

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

19. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

20. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

21. Air Bag System Availability/Function 1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

22. Air Bag System Deployment 1

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 7

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

AIR BAG  
(8) Restrained, type unknown  
(9) Police indicated "unknown"

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

26. Seat Type (this Occupant Position) 4 6

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position) 7

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): 4 AND 5
- (9) Unknown

## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model    $\phi$    $\phi$    $\phi$   

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat    $\phi$   

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation    $\phi$    $\phi$   

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage    $\phi$    $\phi$   32. Child Safety Seat Shield Usage    $\phi$    $\phi$   33. Child Safety Seat Tether Usage    $\phi$    $\phi$   Note: Options below applicable to  
Variables OA31-OA33.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used



**INJURY CONSEQUENCES**34. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_
- (9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

37. Hospital Stay 4 2

- (00) Not Hospitalized  
\_\_\_\_\_ Code the number of days (up through 60)  
that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

99. Case Occupant 1

- (0) Not Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant  
in another case

38. Working Days Lost 9 7

- \_\_\_\_\_ Code the number of days  
(up through 60) that the occupant  
lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE  
COMPLETED BY THE ZONE CENTER**39. Time to Death φ φ

- \_\_\_\_\_ Code number of hours from time of  
accident to time of death up through 24  
hours. If time of death is greater than 24  
hours, code number of days. (Note: 1 day =  
31, 2 days = 32, ... n days = 30 + n up  
through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- \_\_\_\_\_ Code the Occupant Injury from line  
number(s) for the medically reported  
injury(s) which reportedly contributed to  
this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific  
injuries are not linked to cause  
of death. (specify):  
\_\_\_\_\_

(97) Other result (includes fatal ruled  
disease) (specify):  
\_\_\_\_\_

(99) Unknown

43. Number of Recorded Injuries for  
This Occupant 1 1

- \_\_\_\_\_ Code the actual number of  
injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function φ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use φ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_

- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type φ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System φ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

- (8) Other improper use of automatic belt system (specify): \_\_\_\_\_
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident φ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other automatic belt failure (specify): \_\_\_\_\_

- (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_

- (9) Unknown

## Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative
- [X] Vehicle inspection
- [ ] Official injury data
- [ ] Driver/occupant interview
- [ ] Other (specify): \_\_\_\_\_

- [ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [X] YES [ ]

UPDATE CANDIDATE?

NO [X] YES [ ]

**STOP - VARIABLES 50 THROUGH 53 ARE  
COMPLETED BY THE ZONE CENTER****TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 1 5  
(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the  
initial GCS Score recorded at medical  
facility.  
(97) Injured, details unknown  
(99) Unknown if injured
51. Was the Occupant Given Blood? 9  
(1) No - blood not given  
(2) Yes - blood given  
(specify units): \_\_\_\_\_  
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) -  $\text{HCO}_3$   $\phi$  1  
(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported ,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

53. Primary Source of Belt Use Determination 1  
(0) Not equipped/not available/destroyed  
or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown if belt used



## OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number \_\_\_\_\_

3. Vehicle Number 012. Case Number - Stratum DSI-94-AB-0104. Occupant Number 01

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

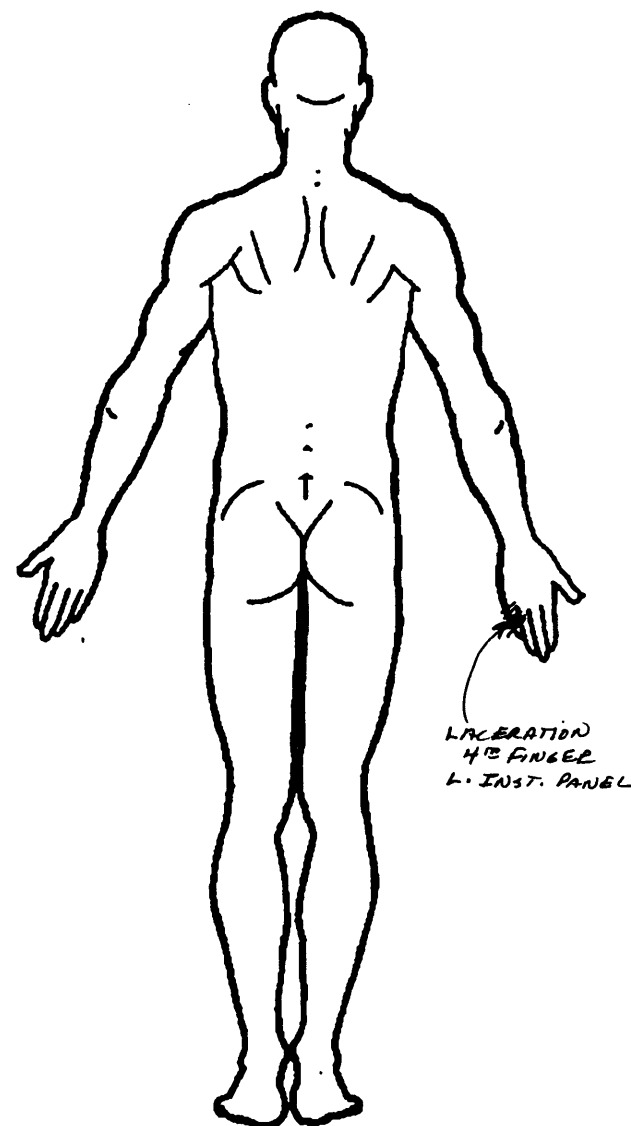
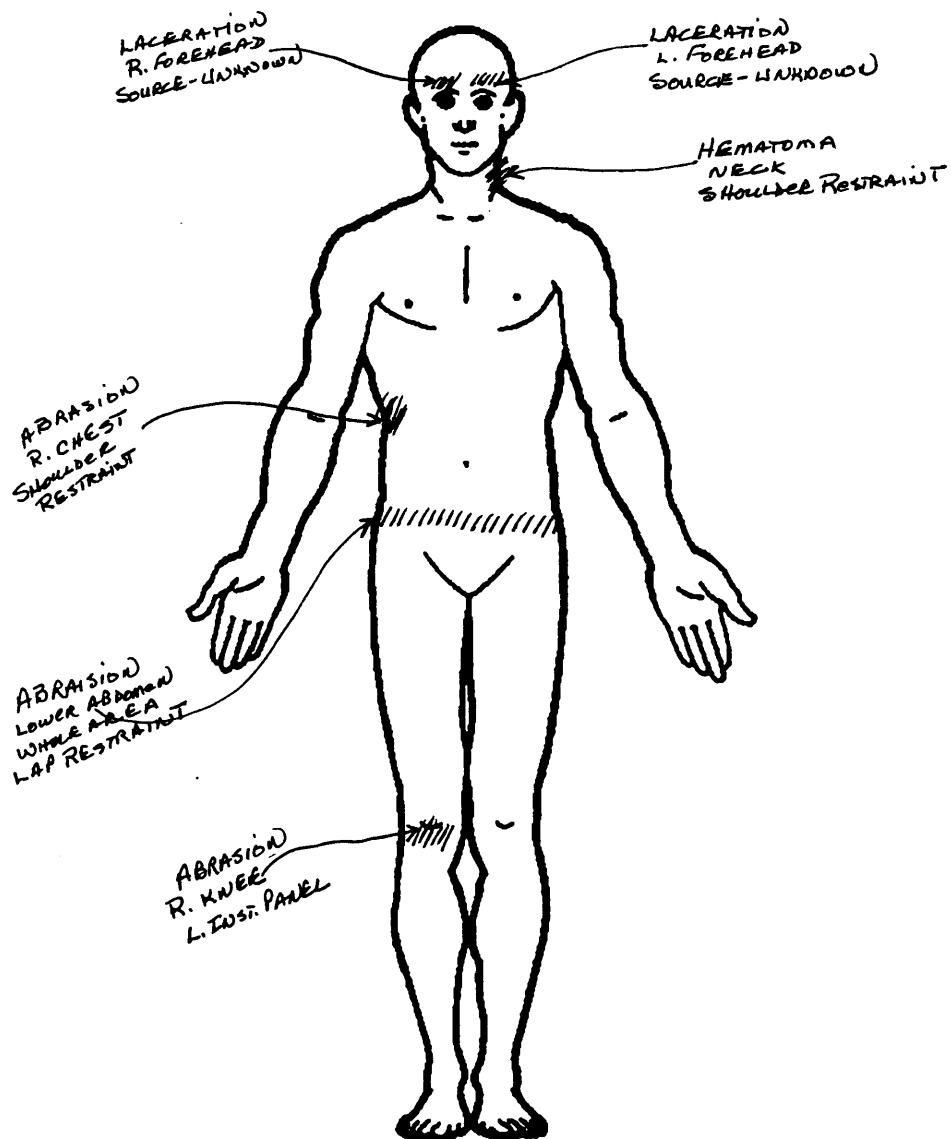
	Source of Injury Data	A.I.S. - 90					Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	ICD-9	
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						Aspect
1st	5. <u>2</u>	6. <u>4</u>	7. <u>5</u>	8. <u>02</u>	9. <u>42</u>	10. <u>5</u>	11. <u>3</u>	12. <u>41</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>	807.09
2nd	16. <u>2</u>	17. <u>4</u>	18. <u>5</u>	19. <u>08</u>	20. <u>04</u>	21. <u>2</u>	22. <u>4</u>	23. <u>41</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>	807.2.
3rd	27. <u>2</u>	28. <u>4</u>	29. <u>4</u>	30. <u>18</u>	31. <u>04</u>	32. <u>2</u>	33. <u>2</u>	34. <u>41</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>	862.29
4th	38. <u>2</u>	39. <u>8</u>	40. <u>5</u>	41. <u>16</u>	42. <u>12</u>	43. <u>2</u>	44. <u>1</u>	45. <u>59</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>	824.6
5th	49. <u>2</u>	50. <u>4</u>	51. <u>9</u>	52. <u>02</u>	53. <u>02</u>	54. <u>1</u>	55. <u>1</u>	56. <u>41</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>	911.0
6th	60. <u>2</u>	61. <u>2</u>	62. <u>9</u>	63. <u>06</u>	64. <u>02</u>	65. <u>1</u>	66. <u>7</u>	67. <u>91</u>	68. <u>7</u>	69. <u>7</u>	70. <u>00</u>	873.42
7th	71. <u>2</u>	72. <u>2</u>	73. <u>9</u>	74. <u>06</u>	75. <u>02</u>	76. <u>1</u>	77. <u>7</u>	78. <u>91</u>	79. <u>7</u>	80. <u>7</u>	81. <u>00</u>	873.42
8th	82. <u>2</u>	83. <u>3</u>	84. <u>9</u>	85. <u>04</u>	86. <u>02</u>	87. <u>1</u>	88. <u>2</u>	89. <u>41</u>	90. <u>1</u>	91. <u>1</u>	92. <u>00</u>	920
9th	93. <u>2</u>	94. <u>7</u>	95. <u>9</u>	96. <u>06</u>	97. <u>02</u>	98. <u>1</u>	99. <u>1</u>	100. <u>09</u>	101. <u>1</u>	102. <u>1</u>	103. <u>00</u>	883.0
10th	104. <u>2</u>	105. <u>5</u>	106. <u>9</u>	107. <u>02</u>	108. <u>02</u>	109. <u>1</u>	110. <u>0</u>	111. <u>41</u>	112. <u>1</u>	113. <u>1</u>	114. <u>00</u>	911.0



[illegible]

# OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## SOURCE OF INJURY DATA

### OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

### UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

## INJURY SOURCE

### FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): \_\_\_\_\_

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_
- (28) Left side window sill

### RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_

- (38) Right side window sill

### INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify): \_\_\_\_\_
- (47) Interior loose objects
- (48) Child safety seat (specify): \_\_\_\_\_
- (49) Other interior object (specify): \_\_\_\_\_

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

### FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

### REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

### EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): \_\_\_\_\_
- (68) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): \_\_\_\_\_

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): \_\_\_\_\_

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): \_\_\_\_\_
- (86) Unknown vehicle or object

### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): \_\_\_\_\_
- (93) Air bag exhaust gases
- (97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

### Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

### Specific Anatomic Structure

- Whole Area
- (02) Skin - Abrasion
  - (04) Skin - Contusion
  - (06) Skin - Laceration
  - (08) Skin - Avulsion
  - (10) Amputation
  - (20) Burn
  - (30) Crush
  - (40) Degloving
  - (50) Injury - NFS
  - (90) Trauma, other than mechanical

### Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

### Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

### Vessels, Nerves, Organs, Bones,

Joints are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

### Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

— No

X Yes

Blood Alcohol Level  
(mg/dl)

BAL = —

Glasgow Coma  
Scale Score

GCSS = 15

Units of Blood  
Given

Units = UNK

Arterial Blood Gases

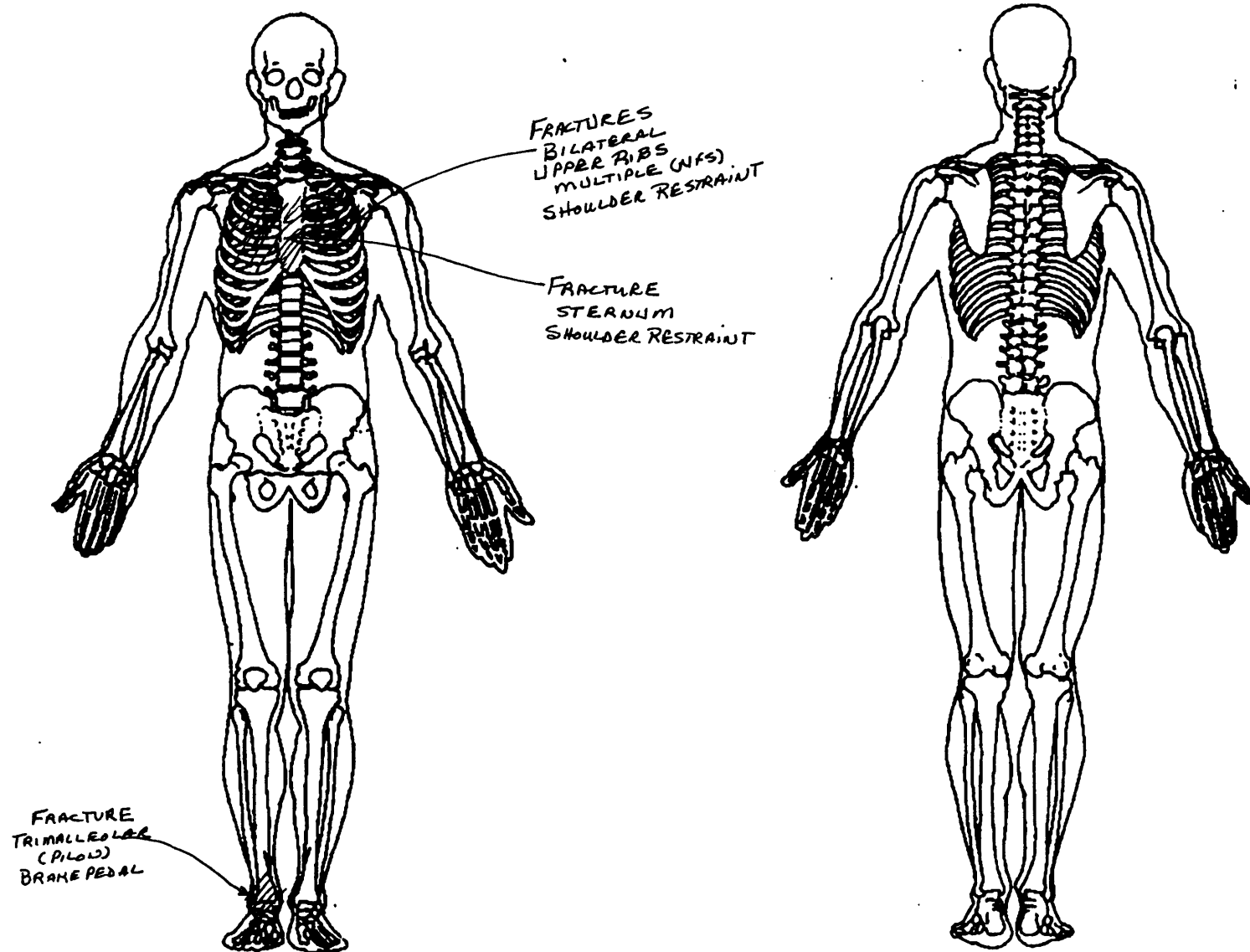
pH = —

PO<sub>2</sub> = —

PCO<sub>2</sub> = —

HCO<sub>3</sub> = —

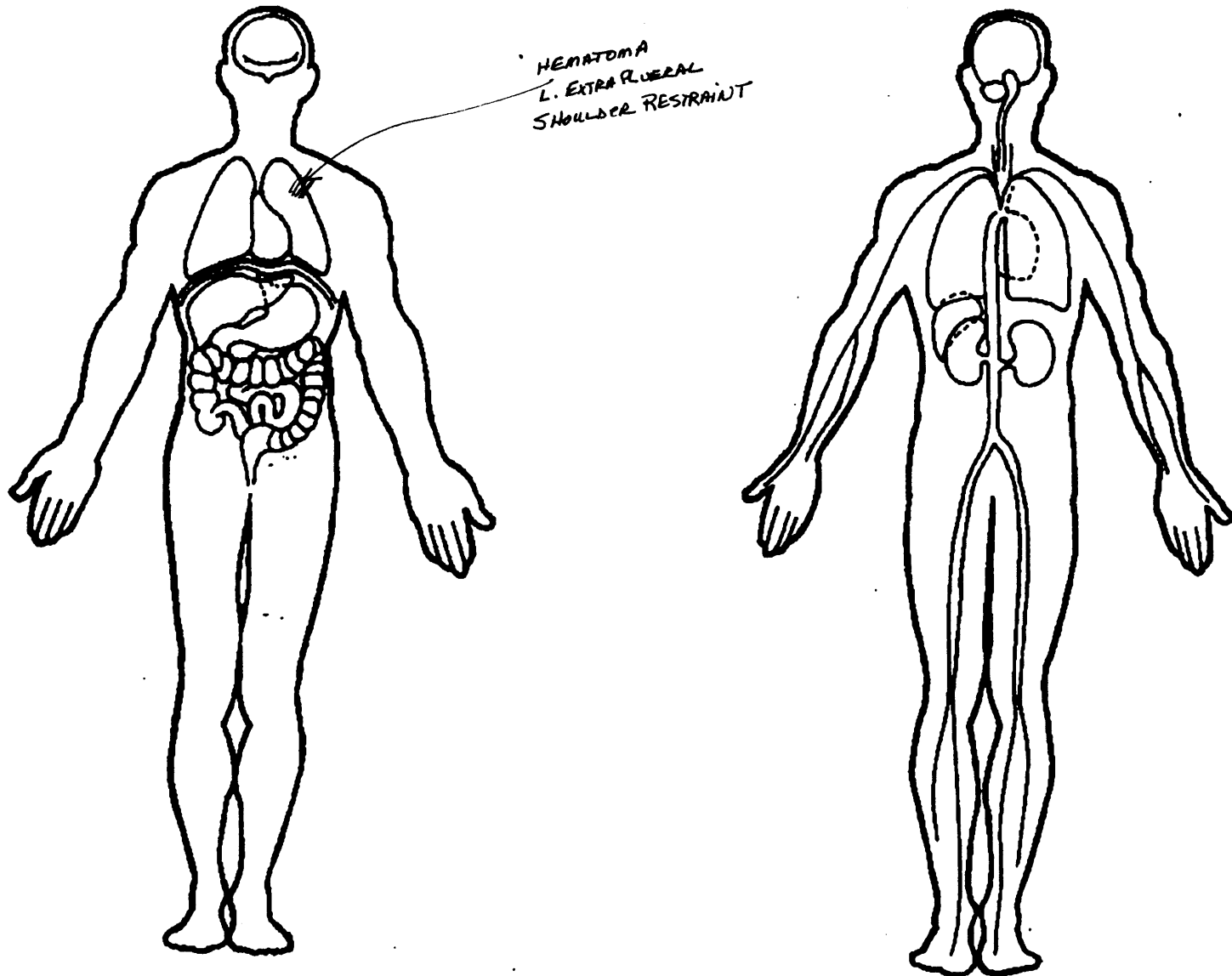
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-94-AA-010
3. Vehicle Number 01
4. Occupant Number 02

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 71  
Code actual age at time of accident.  
(00) Less than one year old (specify by month): \_\_\_\_\_  
(97) 97 years and older \_\_\_\_\_  
(99) Unknown

6. Occupant's Sex 2  
(1) Male  
(2) Female  
(9) Unknown

7. Occupant's Height 157  
Code actual height to the nearest  
centimeter.  
(999) Unknown

62 inches X 2.54 = 157 centimeters

8. Occupant's Weight 060  
Code actual weight to the nearest  
kilogram.  
(999) Unknown

132 pounds X .4536 = 060 kilograms

9. Occupant's Role 2  
(1) Driver  
(2) Passenger  
(9) Unknown

10. Occupant's Seat Position 13  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify): \_\_\_\_\_  
(15) On or in the lap of another occupant

- Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify): \_\_\_\_\_  
(25) On or in the lap of another occupant

- Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify): \_\_\_\_\_  
(35) On or in the lap of another occupant

- Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify): \_\_\_\_\_  
(45) On or in the lap of another occupant

- (97) In or on unenclosed area  
(98) Other seat (specify): \_\_\_\_\_  
(99) Unknown

11. Occupant's Posture 0  
(0) Normal posture

- Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front of seat  
(8) Other abnormal posture (specify): \_\_\_\_\_  
(9) Unknown

## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

18. Manual (Active) Belt System Use 0 0

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

19. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

20. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

21. Air Bag System Availability/Function 1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

22. Air Bag System Deployment 1

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown \_\_\_\_\_

(9) Police indicated "unknown" \_\_\_\_\_

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position

3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

26. Seat Type (this Occupant Position)

6

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position)

7

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify):  
4 AND 5
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown



28. Child Safety Seat Make/Model           
(000) No child safety seat  
Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing  
(950) Built-in child safety seat  
(997) Other make/model (specify):  
  
\_\_\_\_\_  
(998) Unknown make/model  
(999) Unknown if child safety seat used

29. Type of Child Safety Seat        
(0) No child safety seat  
(1) Infant seat  
(2) Toddler seat  
(3) Convertible seat  
(4) Booster seat  
(7) Other type child safety seat (specify):  
  
\_\_\_\_\_  
(8) Unknown child safety seat type  
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation        
(00) No child safety seat  
  
*Designed for Rear Facing for This Age/Weight*  
(01) Rear facing  
(02) Forward facing  
(08) Other orientation (specify):  
  
\_\_\_\_\_  
(09) Unknown orientation  
  
*Designed For Forward Facing for This Age/Weight*  
(11) Rear facing  
(12) Forward facing  
(18) Other orientation (specify):  
  
\_\_\_\_\_  
(19) Unknown orientation  
  
*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*  
(21) Rear facing  
(22) Forward facing  
(28) Other orientation (specify):  
  
\_\_\_\_\_  
(29) Unknown orientation  
  
(99) Unknown if child safety seat used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**34. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_

(9) Unknown

37. Hospital Stay 3 7

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

99. Case Occupant φ

- (0) Not Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant in another case

38. Working Days Lost 2 7

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death φ φ

- \_\_\_\_\_ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- \_\_\_\_\_ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):  
\_\_\_\_\_

(97) Other result (includes fatal ruled disease) (specify):  
\_\_\_\_\_

(99) Unknown

43. Number of Recorded Injuries for This Occupant φ 5

- \_\_\_\_\_ Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function φ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use φ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type φ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System φ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident φ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):
- (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):
- (9) Unknown

## Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative
- [X] Vehicle inspection
- [ ] Official injury data
- [ ] Driver/occupant interview
- [ ] Other (specify):

[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [X] YES [ ]

UPDATE CANDIDATE?

NO [X] YES [ ]

**STOP - VARIABLES 50 THROUGH 53 ARE  
COMPLETED BY THE ZONE CENTER****TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 15  
(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the  
initial GCS Score recorded at medical  
facility.  
(97) Injured, details unknown  
(99) Unknown if injured
51. Was the Occupant Given Blood? 9  
(1) No - blood not given  
(2) Yes - blood given  
(specify units): \_\_\_\_\_  
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) -  $\text{HCO}_3$  01  
(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

53. Primary Source of Belt Use Determination 1  
(0) Not equipped/not available/destroyed  
or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown if belt used

National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number \_\_\_\_\_

3. Vehicle Number cb 12. Case Number - Stratum DSI-94-AB-phi phi4. Occupant Number phi 2

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

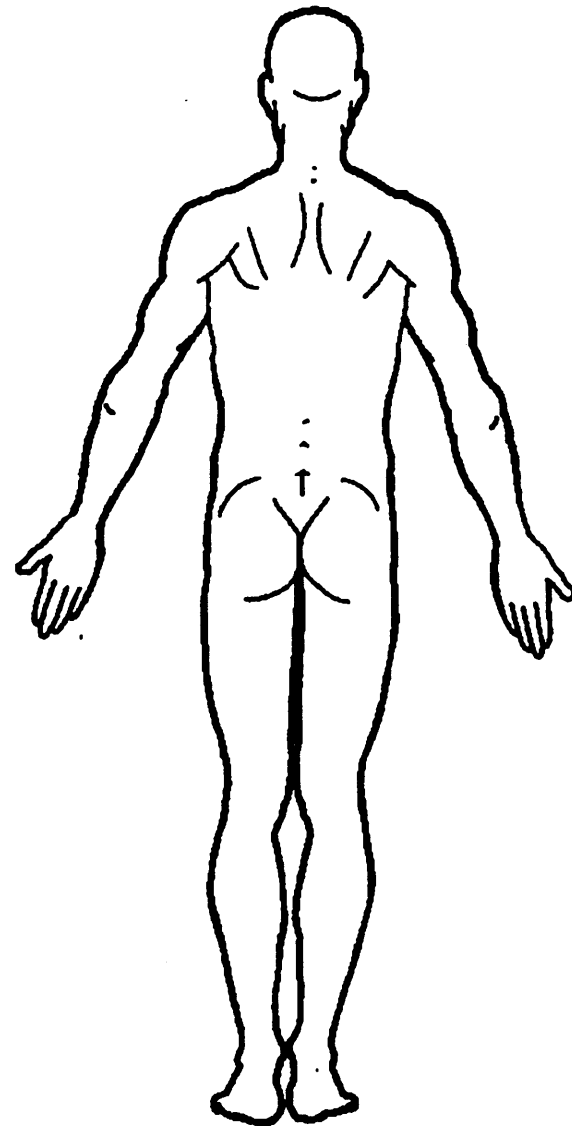
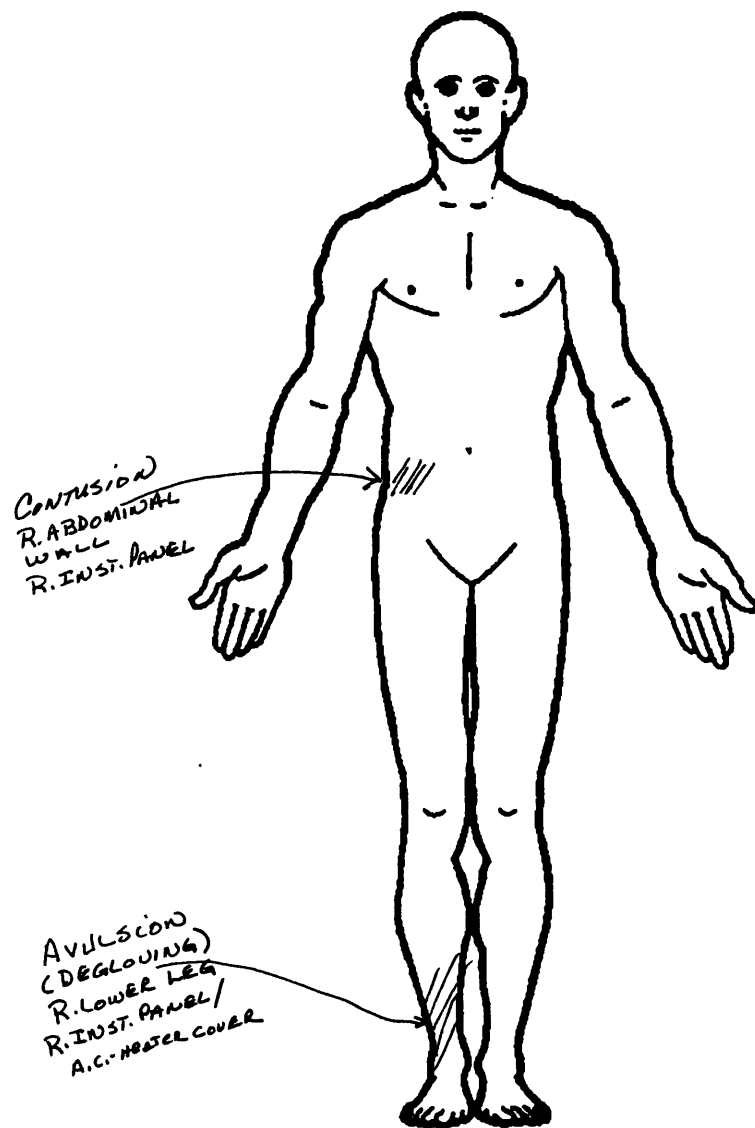
	Source of Injury Data	Body Region	A.I.S. - 90		Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	ICD-9
			Type of Anatomic Structure	Specific Anatomic Structure								
1st	5. <u>2</u>	6. <u>4</u>	7. <u>5</u>	8. <u>phi 2</u>	9. <u>6 6</u>	10. <u>5</u>	11. <u>3</u>	12. <u>1 1</u>	13. <u>1</u>	14. <u>1</u>	15. <u>phi phi</u>	<u>807.4</u>
2nd	16. <u>2</u>	17. <u>7</u>	18. <u>5</u>	19. <u>2 6</u>	20. <u>phi 4</u>	21. <u>3</u>	22. <u>2</u>	23. <u>1 phi</u>	24. <u>1</u>	25. <u>1</u>	26. <u>phi phi</u>	<u>812.31</u>
3rd	27. <u>2</u>	28. <u>8</u>	29. <u>9</u>	30. <u>4 phi</u>	31. <u>phi 6</u>	32. <u>3</u>	33. <u>1</u>	34. <u>1 1</u>	35. <u>1</u>	36. <u>1</u>	37. <u>phi phi</u>	<u>891. phi</u>
4th	38. <u>2</u>	39. <u>8</u>	40. <u>5</u>	41. <u>2 6</u>	42. <u>phi 2</u>	43. <u>2</u>	44. <u>1</u>	45. <u>1 1</u>	46. <u>1</u>	47. <u>1</u>	48. <u>phi phi</u>	<u>808. phi</u>
5th	49. <u>2</u>	50. <u>5</u>	51. <u>9</u>	52. <u>phi 4</u>	53. <u>phi 2</u>	54. <u>1</u>	55. <u>1</u>	56. <u>1 1</u>	57. <u>1</u>	58. <u>1</u>	59. <u>phi phi</u>	<u>922.2</u>
6th	60. ____	61. ____	62. ____	63. ____	64. ____	65. ____	66. ____	67. ____	68. ____	69. ____	70. ____	
7th	71. ____	72. ____	73. ____	74. ____	75. ____	76. ____	77. ____	78. ____	79. ____	80. ____	81. ____	
8th	82. ____	83. ____	84. ____	85. ____	86. ____	87. ____	88. ____	89. ____	90. ____	91. ____	92. ____	
9th	93. ____	94. ____	95. ____	96. ____	97. ____	98. ____	99. ____	100. ____	101. ____	102. ____	103. ____	
0th	104. ____	105. ____	106. ____	107. ____	108. ____	109. ____	110. ____	111. ____	112. ____	113. ____	114. ____	



	A.I.S. - 90							Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	ICD-9
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source				
11th	---	---	---	-----	----	---	---	-----	---	---	-----	
12th	---	---	---	-----	----	---	---	-----	---	---	-----	
3th	---	---	---	-----	----	---	---	-----	---	---	-----	
4th	---	---	---	-----	----	---	---	-----	---	---	-----	
5th	---	---	---	-----	----	---	---	-----	---	---	-----	
6th	---	---	---	-----	----	---	---	-----	---	---	-----	
7th	---	---	---	-----	----	---	---	-----	---	---	-----	
8th	---	---	---	-----	----	---	---	-----	---	---	-----	
.9th	---	---	---	-----	----	---	---	-----	---	---	-----	
20th	---	---	---	-----	----	---	---	-----	---	---	-----	
21st	---	---	---	-----	----	---	---	-----	---	---	-----	
22nd	---	---	---	-----	----	---	---	-----	---	---	-----	
23rd	---	---	---	-----	----	---	---	-----	---	---	-----	
24th	---	---	---	-----	----	---	---	-----	---	---	-----	
25th	---	---	---	-----	----	---	---	-----	---	---	-----	

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## SOURCE OF INJURY DATA

### OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

### UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

## INJURY SOURCE

### FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): \_\_\_\_\_

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_
- (28) Left side window sill

### RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
  - (31) Right side hardware or armrest
  - (32) Right A (A1/A2)-pillar
  - (33) Right B-pillar
  - (34) Other right pillar (specify): \_\_\_\_\_
  - (35) Right side window glass or frame
  - (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
  - (37) Other right side object (specify): \_\_\_\_\_
  - (38) Right side window sill
- ### INTERIOR
- (40) Seat, back support
  - (41) Belt restraint webbing/buckle
  - (42) Belt restraint B-pillar or door frame attachment point
  - (43) Other restraint system component (specify): \_\_\_\_\_
  - (44) Head restraint system
  - (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
  - (46) Other occupants (specify): \_\_\_\_\_
  - (47) Interior loose objects
  - (48) Child safety seat (specify): \_\_\_\_\_
  - (49) Other interior object (specify): \_\_\_\_\_

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

### FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

### REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

### EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): \_\_\_\_\_
- (68) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): \_\_\_\_\_
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): \_\_\_\_\_
- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): \_\_\_\_\_
- (86) Unknown vehicle or object

### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): \_\_\_\_\_
- (93) Air bag exhaust gases
- (97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

### Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

### Specific Anatomic Structure

#### Whole Area

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

#### Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

### Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

### Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☒ No

☐ Yes

Blood Alcohol Level  
(mg/dl)

BAL = 0

Glasgow Coma  
Scale Score

GCSS = 15

Units of Blood  
Given

Units = UNK

Arterial Blood Gases

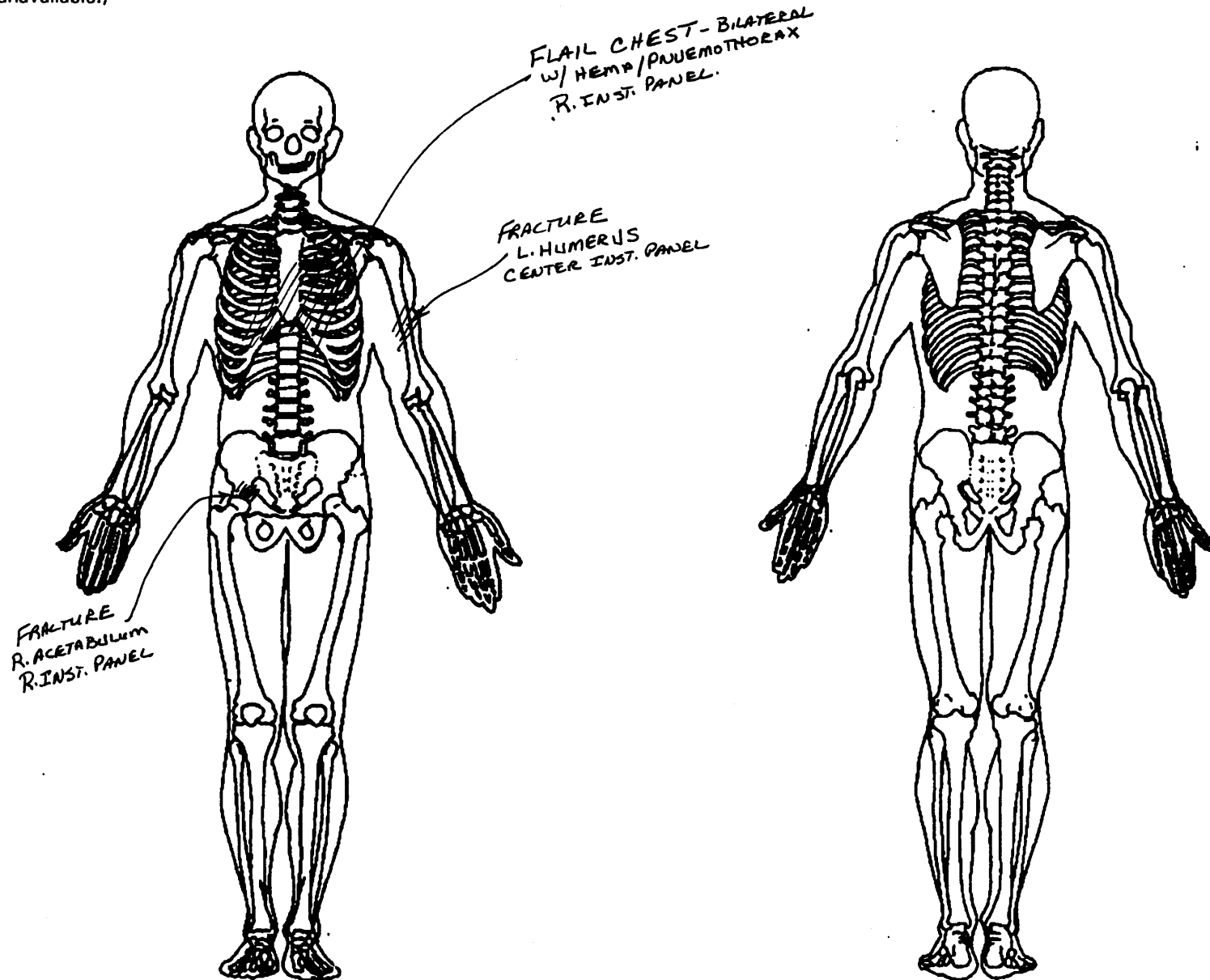
pH =     

PO<sub>2</sub> =     

PCO<sub>2</sub> =     

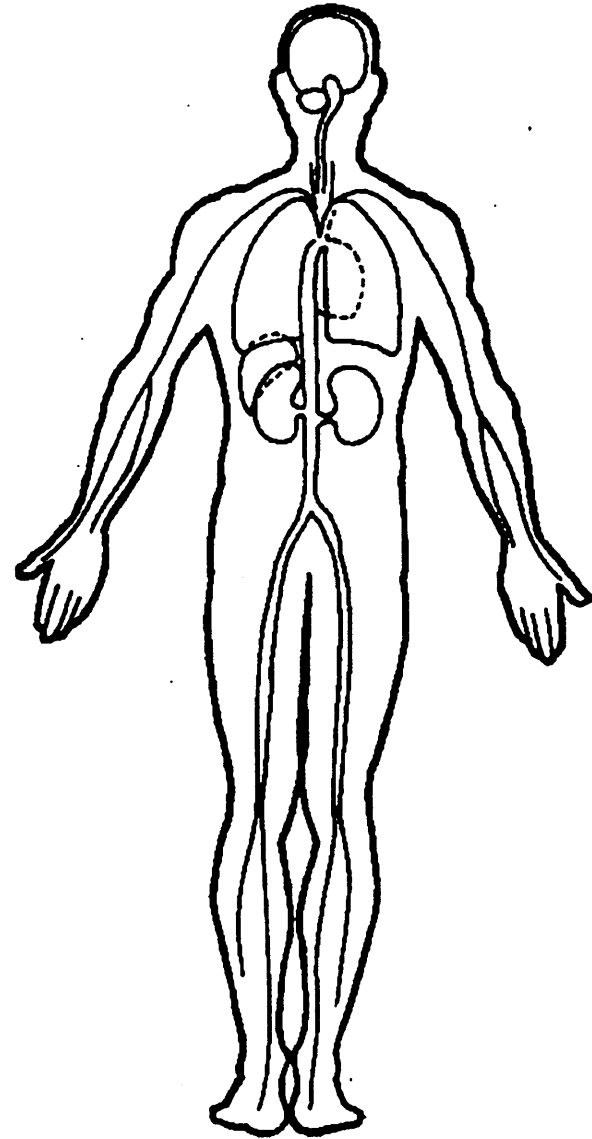
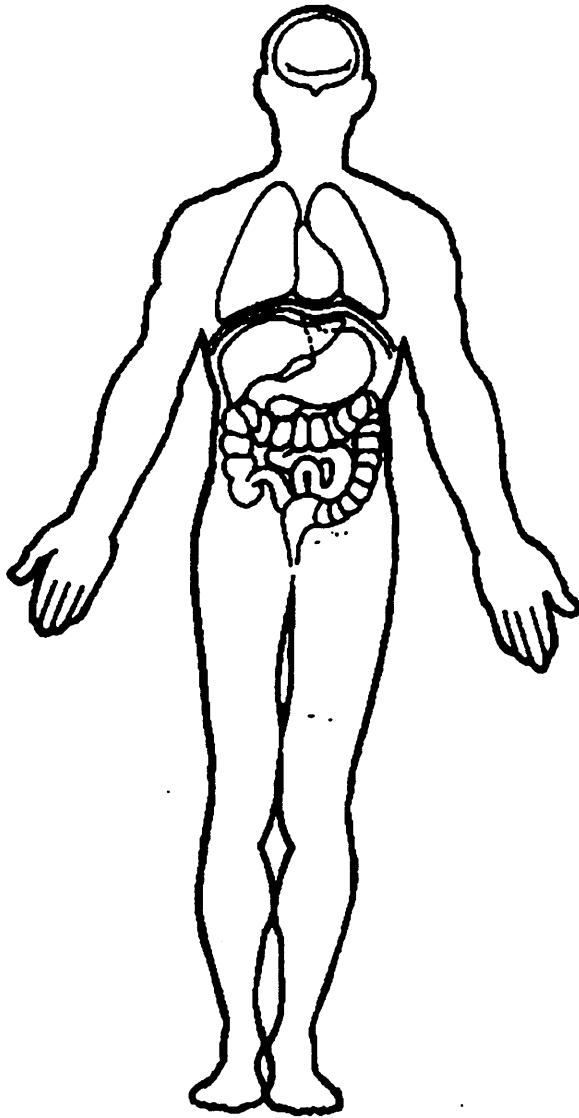
HCO<sub>3</sub> =     

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-94-AB-010
3. Vehicle Number 01
4. Occupant Number 03

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 12  
Code actual age at time of accident.  
(00) Less than one year old (specify by month): \_\_\_\_\_  
(97) 97 years and older \_\_\_\_\_  
(99) Unknown

6. Occupant's Sex 1  
(1) Male  
(2) Female  
(9) Unknown

7. Occupant's Height 299  
Code actual height to the nearest  
centimeter.  
(999) Unknown  
  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

8. Occupant's Weight 999  
Code actual weight to the nearest  
kilogram.  
(999) Unknown  
  
\_\_\_\_\_ pounds X .4536 = \_\_\_\_\_ kilograms

9. Occupant's Role 2  
(1) Driver  
(2) Passenger  
(9) Unknown

10. Occupant's Seat Position 21  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify): \_\_\_\_\_  
(15) On or in the lap of another occupant

- Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify): \_\_\_\_\_  
(25) On or in the lap of another occupant

- Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify): \_\_\_\_\_  
(35) On or in the lap of another occupant

- Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify): \_\_\_\_\_  
(45) On or in the lap of another occupant

- (97) In or on unenclosed area  
(98) Other seat (specify): \_\_\_\_\_  
(99) Unknown

11. Occupant's Posture 7  
(0) Normal posture

- Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front of seat  
(8) Other abnormal posture (specify): \_\_\_\_\_  
(9) Unknown

## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

- (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
- (0) Not entrapped
  - (1) Entrapped
  - (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown

18. Manual (Active) Belt System Use 0 3

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 4

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

(3) Shoulder belt worn under arm

(4) Shoulder belt worn behind back or seat

(5) Belt worn around more than one person

(6) Lap belt worn on abdomen

(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 1

(0) No manual belt used

(1) No manual belt failure(s)

(2) Torn webbing (stretched webbing not included)

(3) Broken buckle or latchplate

(4) Upper anchorage separated

(5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown

21. Air Bag System Availability/Function 0

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled

(9) Unknown

22. Air Bag System Deployment 0

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 0

(0) Not equipped/not available

(1) No

(2) Yes (specify): \_\_\_\_\_

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown

(9) Police indicated "unknown"

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant  
at This Occupant Positionφ

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

26. Seat Type (this Occupant Position)

φ 3

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type)

(99) Unknown

27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed  
(specify): \_\_\_\_\_
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion  
(specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model ϕ ϕ ϕ  
 (000) No child safety seat  
 Applicable codes are found in your NASS CDS  
 Data Collection, Coding and Editing  
 (950) Built-in child safety seat  
 (997) Other make/model (specify):

(998) Unknown make/model  
 (999) Unknown if child safety seat used

29. Type of Child Safety Seat ϕ  
 (0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat  
 (7) Other type child safety seat (specify):

(8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

30. Child Safety Seat Orientation ϕ ϕ  
 (00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*

(21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage ϕ ϕ

32. Child Safety Seat Shield Usage ϕ ϕ

33. Child Safety Seat Tether Usage ϕ ϕ

Note: Options below applicable to  
 Variables OA31-OA33.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

(01) After market harness/shield/tether  
 added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market  
 harness/shield/tether added  
 (09) Unknown if harness/shield/tether  
 added or used

*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used



**INJURY CONSEQUENCES**34. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_
- (9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

37. Hospital Stay 9 9

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

99. Case Occupant φ

- (0) Not Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant in another case

38. Working Days Lost 9 7

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death φ φ

- \_\_\_\_\_ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- \_\_\_\_\_ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):  
\_\_\_\_\_

(97) Other result (includes fatal ruled disease) (specify):  
\_\_\_\_\_

(99) Unknown

43. Number of Recorded Injuries for This Occupant φ 2

- \_\_\_\_\_ Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function φ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use φ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type φ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System φ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident φ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

- (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):

- (9) Unknown

## Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative
- [X] Vehicle inspection
- [ ] Official injury data
- [ ] Driver/occupant interview
- [ ] Other (specify):

- [ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [X] YES [ ]

UPDATE CANDIDATE?

NO [X] YES [ ]

**STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**

**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 9 7  
(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured
51. Was the Occupant Given Blood? 9  
(1) No - blood not given  
(2) Yes - blood given  
(specify units): \_\_\_\_\_  
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) -  $\text{HCO}_3$  9 7  
(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported ,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

53. Primary Source of Belt Use Determination 1  
(0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown if belt used



## OCCUPANT INJURY FORM

1. Primary Sampling Unit Number \_\_\_\_\_

3. Vehicle Number 012. Case Number - Stratum DSI-94-AB-0104. Occupant Number 03

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

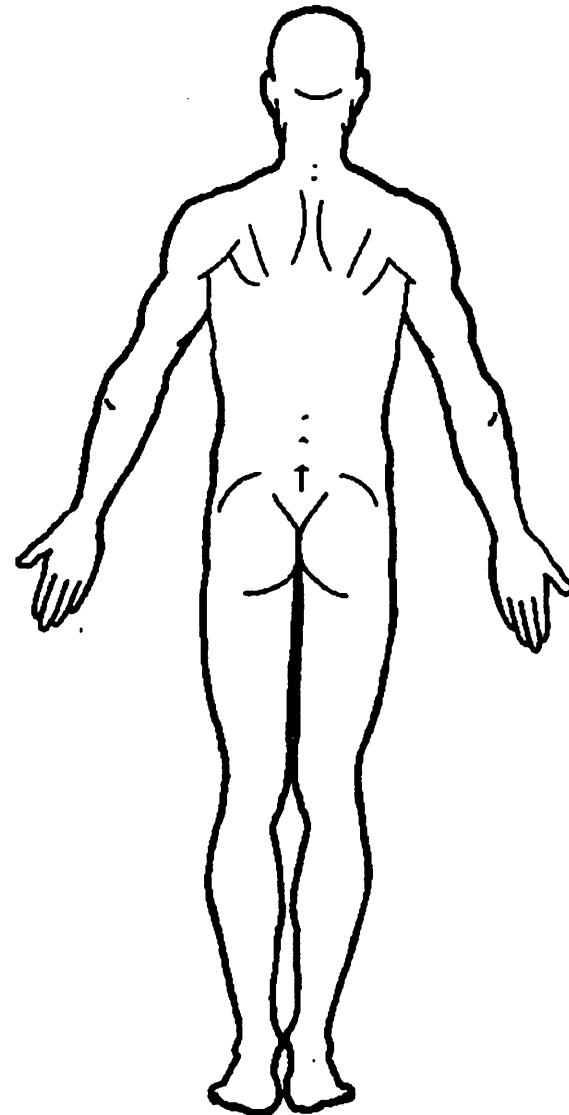
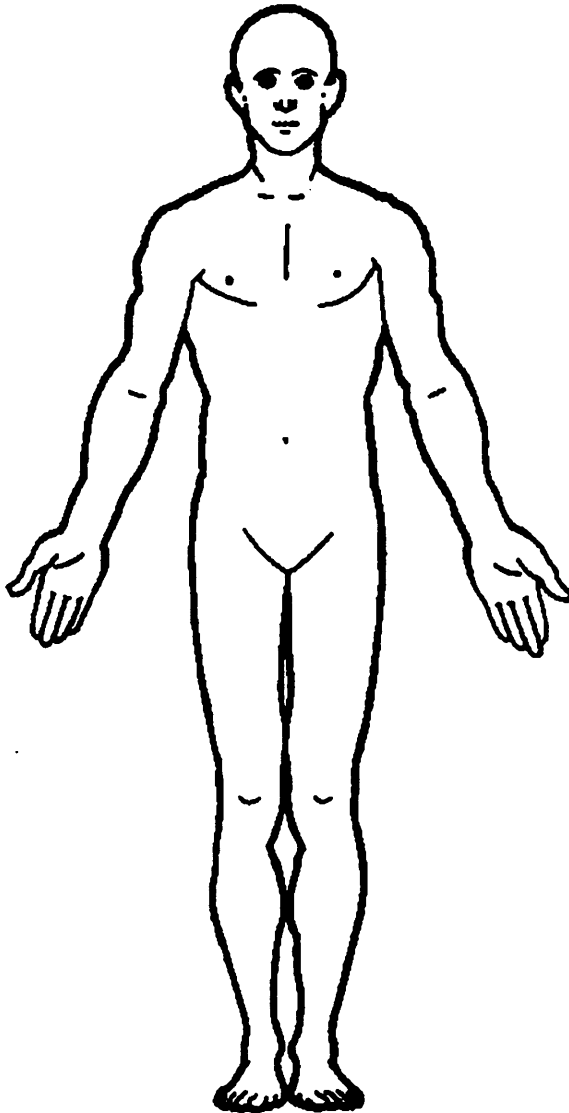
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	ICD-9
1st	5. <u>2</u>	6. <u>6</u>	7. <u>5</u>	8. <u>06</u>	9. <u>30</u>	10. <u>2</u>	11. <u>8</u>	12. <u>92</u>	13. <u>1</u>	14. <u>3</u>	15. <u>00</u>	<u>866.4</u>
2nd	16. <u>2</u>	17. <u>5</u>	18. <u>4</u>	19. <u>14</u>	20. <u>22</u>	21. <u>2</u>	22. <u>8</u>	23. <u>41</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>	<u>863.20</u>
3rd	27. ____	28. ____	29. ____	30. ____	31. ____	32. ____	33. ____	34. ____	35. ____	36. ____	37. ____	
4th	38. ____	39. ____	40. ____	41. ____	42. ____	43. ____	44. ____	45. ____	46. ____	47. ____	48. ____	
5th	49. ____	50. ____	51. ____	52. ____	53. ____	54. ____	55. ____	56. ____	57. ____	58. ____	59. ____	
6th	60. ____	61. ____	62. ____	63. ____	64. ____	65. ____	66. ____	67. ____	68. ____	69. ____	70. ____	
7th	71. ____	72. ____	73. ____	74. ____	75. ____	76. ____	77. ____	78. ____	79. ____	80. ____	81. ____	
8th	82. ____	83. ____	84. ____	85. ____	86. ____	87. ____	88. ____	89. ____	90. ____	91. ____	92. ____	
9th	93. ____	94. ____	95. ____	96. ____	97. ____	98. ____	99. ____	100. ____	101. ____	102. ____	103. ____	
10th	104. ____	105. ____	106. ____	107. ____	108. ____	109. ____	110. ____	111. ____	112. ____	113. ____	114. ____	

	Source of Injury Data	A.I.S. - 90					Aspect	Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	ICD-9
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
11th	---	---	---	-----	-----	---	---	-----	---	---	-----	
12th	---	---	---	-----	-----	---	---	-----	---	---	-----	
13th	---	---	---	-----	-----	---	---	-----	---	---	-----	
14th	---	---	---	-----	-----	---	---	-----	---	---	-----	
15th	---	---	---	-----	-----	---	---	-----	---	---	-----	
16th	---	---	---	-----	-----	---	---	-----	---	---	-----	
17th	---	---	---	-----	-----	---	---	-----	---	---	-----	
18th	---	---	---	-----	-----	---	---	-----	---	---	-----	
19th	---	---	---	-----	-----	---	---	-----	---	---	-----	
20th	---	---	---	-----	-----	---	---	-----	---	---	-----	
21st	---	---	---	-----	-----	---	---	-----	---	---	-----	
22nd	---	---	---	-----	-----	---	---	-----	---	---	-----	
23rd	---	---	---	-----	-----	---	---	-----	---	---	-----	
24th	---	---	---	-----	-----	---	---	-----	---	---	-----	
25th	---	---	---	-----	-----	---	---	-----	---	---	-----	



## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## SOURCE OF INJURY DATA

### OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

### UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

## INJURY SOURCE

### FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): \_\_\_\_\_

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_
- (28) Left side window sill

### RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
  - (31) Right side hardware or armrest
  - (32) Right A (A1/A2)-pillar
  - (33) Right B-pillar
  - (34) Other right pillar (specify): \_\_\_\_\_
  - (35) Right side window glass or frame
  - (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
  - (37) Other right side object (specify): \_\_\_\_\_
  - (38) Right side window sill
- ### INTERIOR
- (40) Seat, back support
  - (41) Belt restraint webbing/buckle
  - (42) Belt restraint B-pillar or door frame attachment point
  - (43) Other restraint system component (specify): \_\_\_\_\_
  - (44) Head restraint system
  - (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
  - (46) Other occupants (specify): \_\_\_\_\_
  - (47) Interior loose objects
  - (48) Child safety seat (specify): \_\_\_\_\_
  - (49) Other interior object (specify): \_\_\_\_\_

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

### FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

### REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

### EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): \_\_\_\_\_
- (68) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): \_\_\_\_\_
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): \_\_\_\_\_

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): \_\_\_\_\_
- (86) Unknown vehicle or object

### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): INTERNAL FORCES
- (93) Air bag exhaust gases
- (97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

### Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

### Specific Anatomic Structure

#### Whole Area

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

#### Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

### Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

### Vessels, Nerves, Organs, Bones,

Joints are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

### Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

— No

☒ Yes

Blood Alcohol Level  
(mg/dl)

BAL = 0

Glasgow Coma  
Scale Score

GCSS = UNK

Units of Blood  
Given

Units = UNK

Arterial Blood Gases

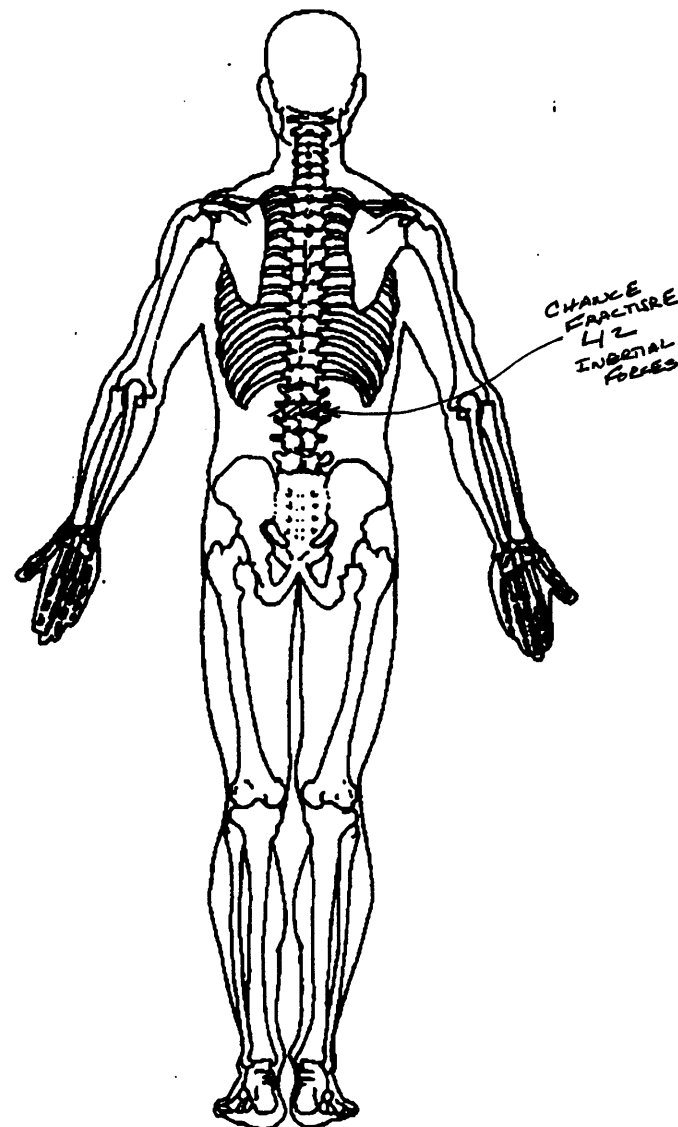
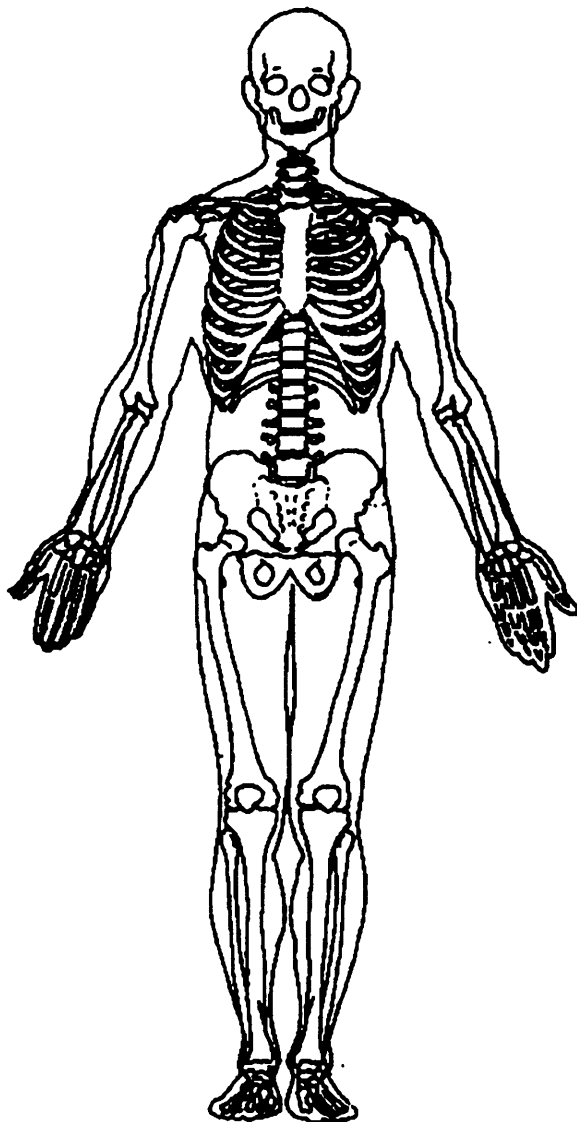
pH = 7

PO<sub>2</sub> = 100

PCO<sub>2</sub> = 40

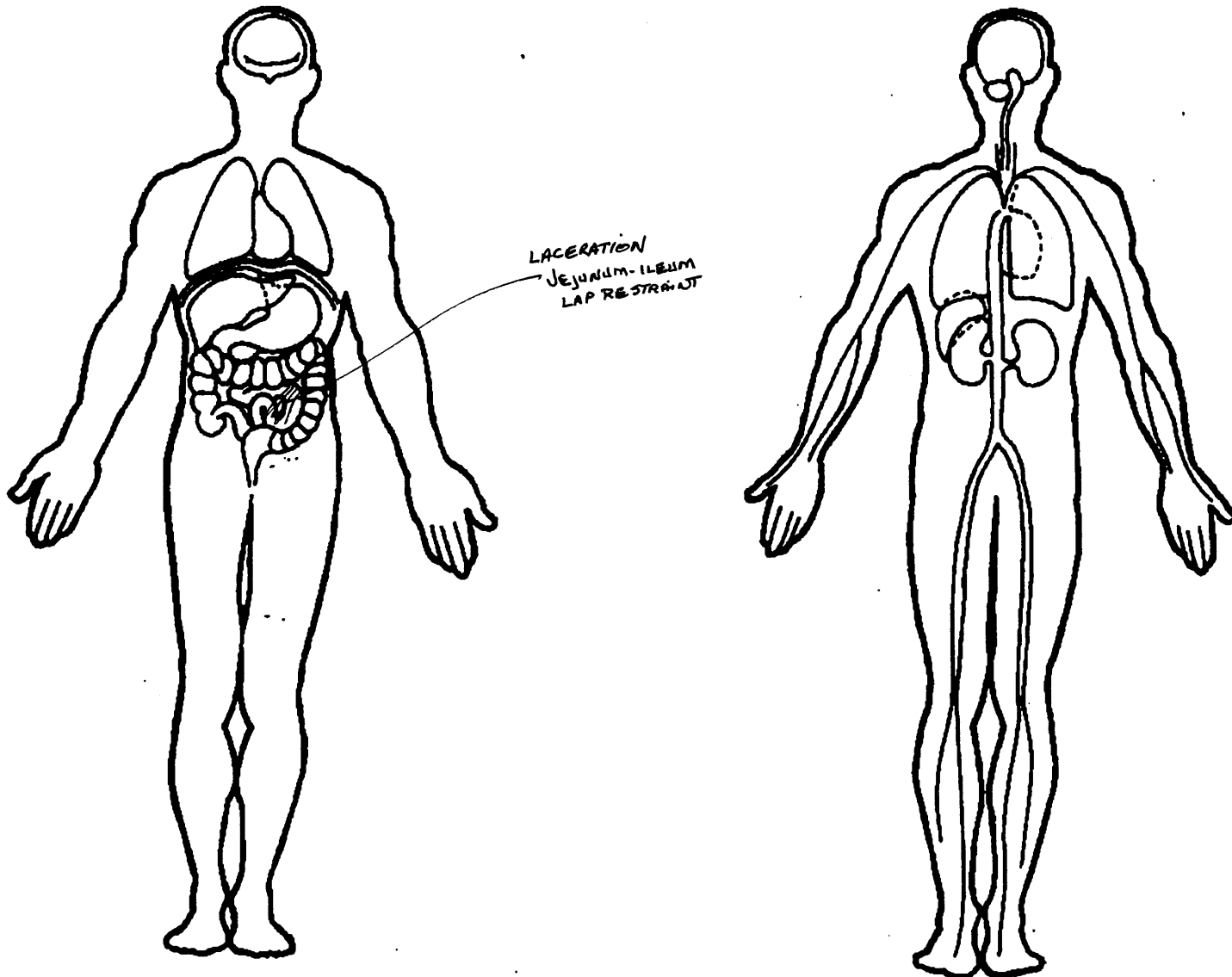
HCO<sub>3</sub> = 24

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-94-AB-010
3. Vehicle Number 01
4. Occupant Number 04

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 09  
Code actual age at time of accident.  
(00) Less than one year old (specify by month): \_\_\_\_\_  
(97) 97 years and older \_\_\_\_\_  
(99) Unknown
6. Occupant's Sex 2  
(1) Male  
(2) Female  
(9) Unknown
7. Occupant's Height 999  
Code actual height to the nearest centimeter.  
(999) Unknown  
  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters
8. Occupant's Weight 999  
Code actual weight to the nearest kilogram.  
(999) Unknown  
  
\_\_\_\_\_ pounds X .4536 = \_\_\_\_\_ kilograms
9. Occupant's Role \_\_\_\_\_  
(1) Driver  
(2) Passenger  
(9) Unknown

10. Occupant's Seat Position 23  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify): \_\_\_\_\_  
(15) On or in the lap of another occupant
- Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify): \_\_\_\_\_  
(25) On or in the lap of another occupant
- Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify): \_\_\_\_\_  
(35) On or in the lap of another occupant
- Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify): \_\_\_\_\_  
(45) On or in the lap of another occupant
- (97) In or on unenclosed area  
(98) Other seat (specify): \_\_\_\_\_  
(99) Unknown
11. Occupant's Posture 7  
(0) Normal posture
- Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front of seat  
(8) Other abnormal posture (specify): \_\_\_\_\_  
(9) Unknown



## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

18. Manual (Active) Belt System Use φ φ

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

19. Proper Use of Manual (Active) Belts φ

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

20. Manual (Active) Belt Failure Modes During Accident φ

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

21. Air Bag System Availability/Function φ

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

22. Air Bag System Deployment φ

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? φ

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use φ

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown \_\_\_\_\_

(9) Police indicated "unknown" \_\_\_\_\_

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant  
at This Occupant Positionφ

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

26. Seat Type (this Occupant Position)

φ 3

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type)

(99) Unknown

27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model ϕ ϕ ϕ

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat ϕ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation ϕ ϕ

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage ϕ ϕ32. Child Safety Seat Shield Usage ϕ ϕ33. Child Safety Seat Tether Usage ϕ ϕNote: Options below applicable to  
Variables OA31-OA33.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**34. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital Stay 9 9

- (00) Not Hospitalized
- Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

99. Case Occupant φ

- (0) Not Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant in another case

38. Working Days Lost 9 7

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death φ φ

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant φ 2

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured



**AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/ Function ϕ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use ϕ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_
- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type ϕ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System ϕ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
- (8) Other improper use of automatic belt system (specify): \_\_\_\_\_
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident ϕ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other automatic belt failure (specify): \_\_\_\_\_
- (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

## Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative
- [X] Vehicle inspection
- [ ] Official injury data
- [ ] Driver/occupant interview
- [ ] Other (specify): \_\_\_\_\_

[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [X] YES [ ]

UPDATE CANDIDATE?

NO [X] YES [ ]

**STOP - VARIABLES 50 THROUGH 53 ARE  
COMPLETED BY THE ZONE CENTER****TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 9 7  
(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the  
initial GCS Score recorded at medical  
facility.  
(97) Injured, details unknown  
(99) Unknown if injured
51. Was the Occupant Given Blood? 9  
(1) No - blood not given  
(2) Yes - blood given  
(specify units): \_\_\_\_\_  
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) -  $\text{HCO}_3$  9 7  
(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

53. Primary Source of Belt Use Determination 1  
(0) Not equipped/not available/destroyed  
or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown if belt used



National Highway Traffic Safety  
Administration

# OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	_____	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>DSI-94-AB-010</u>	4. Occupant Number	<u>04</u>

## INJURY DATA

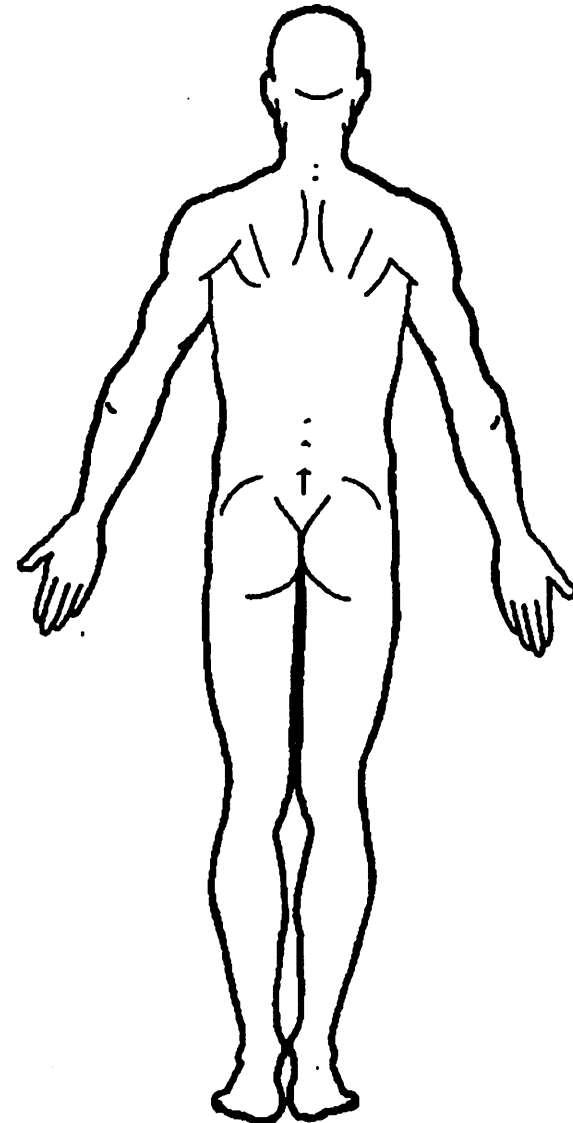
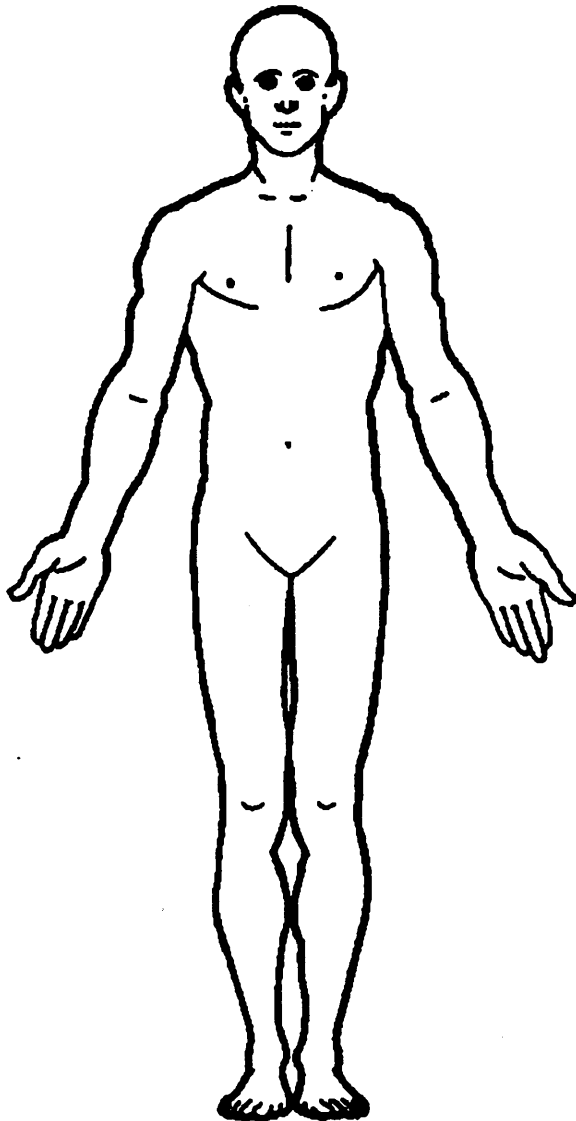
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	ICD-9
1st	5. <u>2</u>	6. <u>8</u>	7. <u>5</u>	8. <u>18</u>	9. <u>16</u>	10. <u>2</u>	11. <u>1</u>	12. <u>40</u>	13. <u>1</u>	14. <u>2</u>	15. <u>00</u>	<u>821.0</u>
2nd	16. <u>2</u>	17. <u>8</u>	18. <u>5</u>	19. <u>18</u>	20. <u>16</u>	21. <u>2</u>	22. <u>1</u>	23. <u>40</u>	24. <u>1</u>	25. <u>2</u>	26. <u>00</u>	<u>821.0</u>
3rd	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____	33. _____	34. _____	35. _____	36. _____	37. _____	
4th	38. _____	39. _____	40. _____	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____	47. _____	48. _____	
5th	49. _____	50. _____	51. _____	52. _____	53. _____	54. _____	55. _____	56. _____	57. _____	58. _____	59. _____	
6th	60. _____	61. _____	62. _____	63. _____	64. _____	65. _____	66. _____	67. _____	68. _____	69. _____	70. _____	
7th	71. _____	72. _____	73. _____	74. _____	75. _____	76. _____	77. _____	78. _____	79. _____	80. _____	81. _____	
8th	82. _____	83. _____	84. _____	85. _____	86. _____	87. _____	88. _____	89. _____	90. _____	91. _____	92. _____	
9th	93. _____	94. _____	95. _____	96. _____	97. _____	98. _____	99. _____	100. _____	101. _____	102. _____	103. _____	
10th	104. _____	105. _____	106. _____	107. _____	108. _____	109. _____	110. _____	111. _____	112. _____	113. _____	114. _____	

		A.I.S. - 90						Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	ICD-9
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source			
11th	---	---	---	-----	----	---	---	-----	---	---	-----
12th	---	---	---	-----	----	---	---	-----	---	---	-----
13th	---	---	---	-----	----	---	---	-----	---	---	-----
4th	---	---	---	-----	----	---	---	-----	---	---	-----
5th	---	---	---	-----	----	---	---	-----	---	---	-----
6th	---	---	---	-----	----	---	---	-----	---	---	-----
7th	---	---	---	-----	----	---	---	-----	---	---	-----
8th	---	---	---	-----	----	---	---	-----	---	---	-----
9th	---	---	---	-----	----	---	---	-----	---	---	-----
_0th	---	---	---	-----	----	---	---	-----	---	---	-----
<1st	---	---	---	-----	----	---	---	-----	---	---	-----
22nd	---	---	---	-----	----	---	---	-----	---	---	-----
23rd	---	---	---	-----	----	---	---	-----	---	---	-----
24th	---	---	---	-----	----	---	---	-----	---	---	-----
25th	---	---	---	-----	----	---	---	-----	---	---	-----

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## SOURCE OF INJURY DATA

### OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

### UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

## INJURY SOURCE

### FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): \_\_\_\_\_

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_
- (28) Left side window sill

### RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_

- (38) Right side window sill

### INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify): \_\_\_\_\_
- (47) Interior loose objects
- (48) Child safety seat (specify): \_\_\_\_\_
- (49) Other interior object (specify): \_\_\_\_\_

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

### FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

### REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

### EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): \_\_\_\_\_
- (68) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): \_\_\_\_\_
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): \_\_\_\_\_

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): \_\_\_\_\_
- (86) Unknown vehicle or object

### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): \_\_\_\_\_
- (93) Air bag exhaust gases
- (97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

### Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

### Specific Anatomic Structure

#### Whole Area

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

#### Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

### Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

### Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

Y No

\_\_\_ Yes

Blood Alcohol Level  
(mg/dl)

BAL = φ

Glasgow Coma  
Scale Score

GCSS = UNK

Units of Blood  
Given

Units = UNK

Arterial Blood Gases

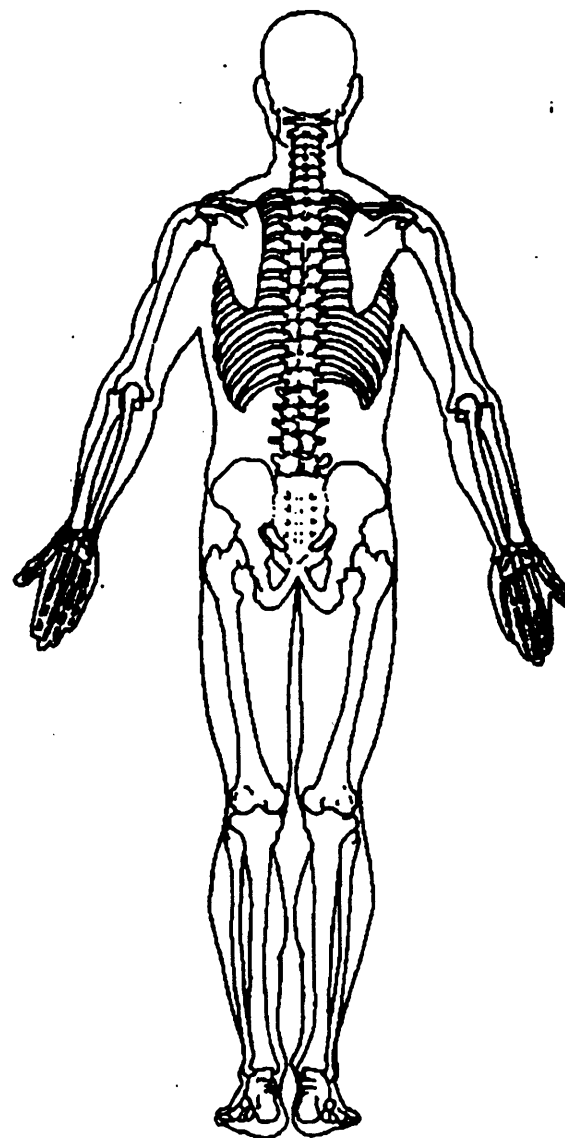
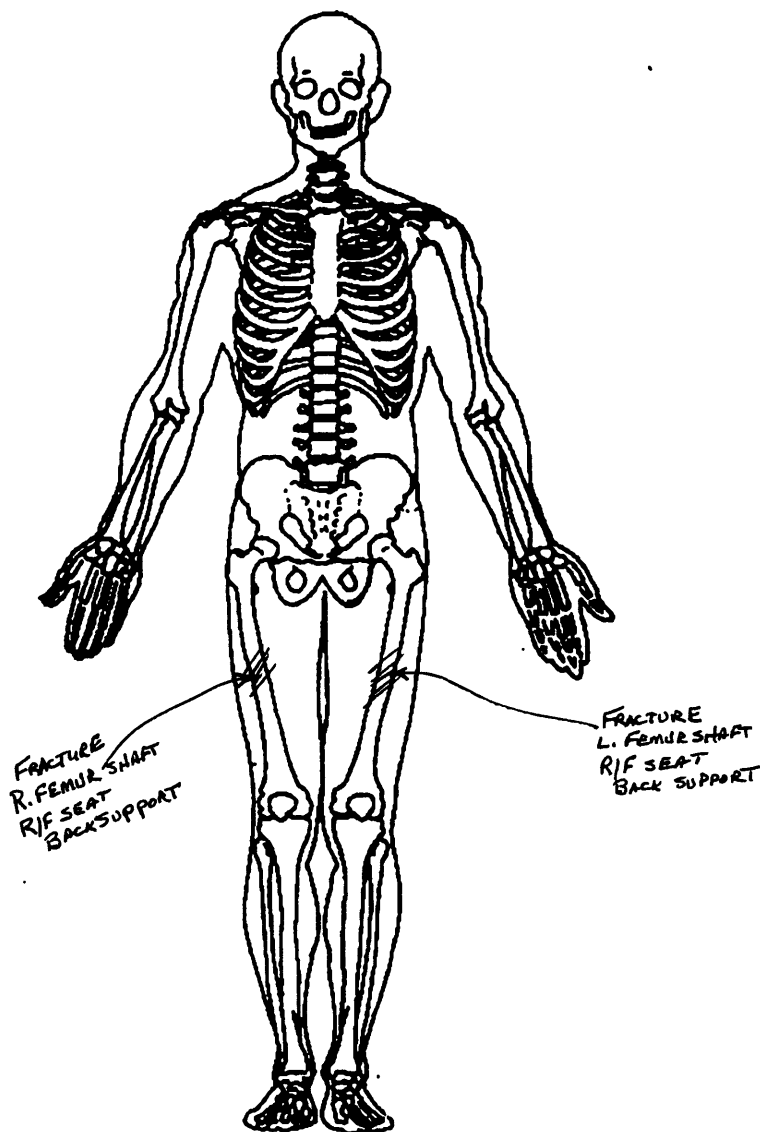
pH =    

PO<sub>2</sub> =    

PCO<sub>2</sub> =    

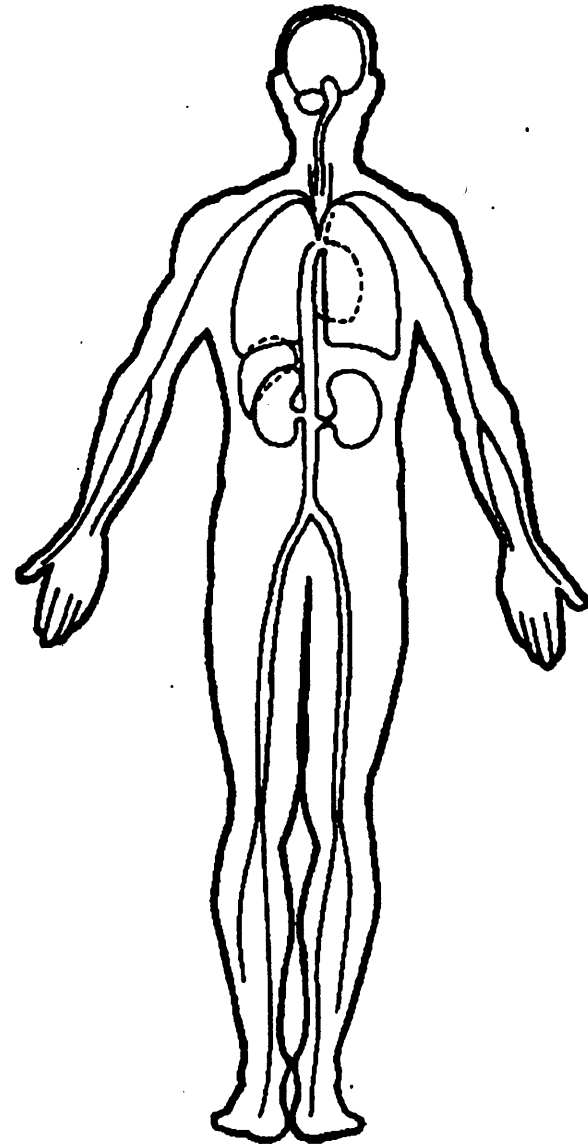
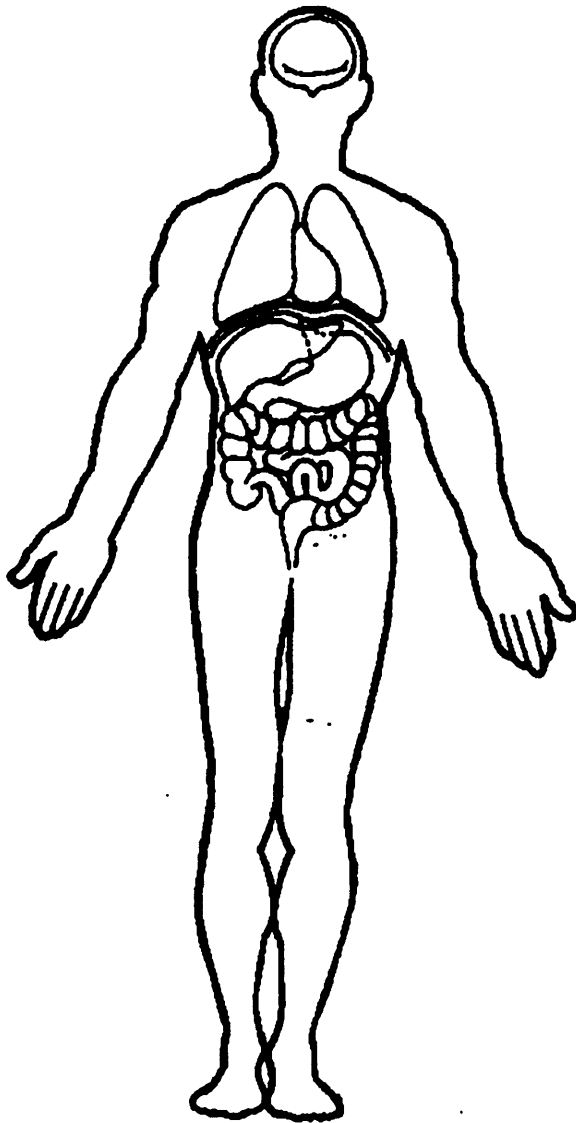
HCO<sub>3</sub> =    

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## GENERAL VEHICLE FORM

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-24-AB-010
3. Vehicle Number 02

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 87  
Code the last two digits of the model year  
(99) Unknown
5. Vehicle Make (specify): 84  
INTERNATIONAL  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown
6. Vehicle Model (specify): 881  
F9370 CBE  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown
7. Body Type 68  
Note: Applicable codes may be found on  
the back of this page.
8. Vehicle Identification Number  
2 H S F B A C R 2 H C [REDACTED]  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nines

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown
10. Police Reported Travel Speed 999  
Code to the nearest kph (NOTE: 000 means  
less than 0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kph

11. Police Reported Alcohol Presence 0  
(0) No alcohol present  
(1) Yes (alcohol present)  
(7) Not reported  
(8) No driver present  
(9) Unknown

Note: See variables 37 through 55  
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: PAR

## ACCIDENT RELATED

13. Speed Limit 056  
(000) No statutory limit  
Code posted or statutory speed limit  
in kph  
(999) Unknown  
35 mph X 1.6093 = 056 kph
14. Attempted Avoidance Maneuver 01  
(01) No avoidance actions  
(02) Braking (no lockup)  
(03) Braking (lockup)  
(04) Braking (lockup unknown)  
(05) Releasing brakes  
(06) Steering left  
(07) Steering right  
(08) Braking and steering left  
(09) Braking and steering right  
(10) Accelerating  
(11) Accelerating and steering left  
(12) Accelerating and steering right  
(97) No driver present  
(98) Other action (specify):  
(99) Unknown
15. Accident Type 68  
Applicable codes may be found on the  
back of page two of this field form  
(00) No impact  
Code the number of the diagram that  
best describes the accident circumstance  
(98) Other accident type (specify):  
(99) Unknown

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_
- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 4,500$ kgs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,500$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,500$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,500$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,500$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500.)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 4,500$ kgs GVWR)

- (60) Step van ( $> 4,500$  kgs GVWR)
- (61) Single unit straight truck ( $4,500$  kgs  $<$  GVWR  $\leq 8,850$  kgs)
- (62) Single unit straight truck ( $8,850$  kgs  $<$  GVWR  $\leq 12,000$  kgs)
- (63) Single unit straight truck ( $> 12,000$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type



**OCCUPANT RELATED**

16. Driver Presence in Vehicle \_\_\_\_\_  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
17. Number of Occupants This Vehicle \_\_\_\_\_  
 (00-96) Code actual number of occupants  
       for this vehicle  
 (97) 97 or more  
 (99) Unknown
18. Number of Occupant Forms Submitted \_\_\_\_\_

24. Rollover \_\_\_\_\_  
 (0) No rollover (no overturning)
- Rollover (primarily about the longitudinal axis)*  
 (1) Rollover, 1 quarter turn only  
 (2) Rollover, 2 quarter turns  
 (3) Rollover, 3 quarter turns  
 (4) Rollover, 4 or more quarter turns (specify):  
       \_\_\_\_\_
- (5) Rollover--end-over-end (i.e., primarily  
       about the lateral axis)  
 (9) Rollover (overturn), details unknown

**VEHICLE WEIGHT ITEMS**

19. Vehicle Curb Weight \_\_\_\_\_, \_\_\_\_\_ 0  
       Code weight to nearest  
       10 kilograms.  
 (045) Less than 450 kilograms  
 (610) 6,100 kilograms or more  
 (999) Unknown
- \_\_\_\_\_, \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_, \_\_\_\_\_ kgs
- Source: \_\_\_\_\_
20. Vehicle Cargo Weight \_\_\_\_\_, \_\_\_\_\_ 0  
       Code weight to nearest  
       10 kilograms.  
 (000) Less than 5 kilograms  
 (450) 4,500 kilograms or more  
 (999) Unknown
- \_\_\_\_\_, \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_, \_\_\_\_\_ kgs

**OVERRIDE/UNDERRIDE (THIS VEHICLE)**

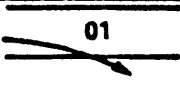
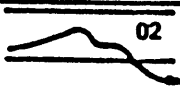
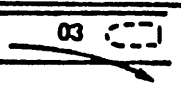
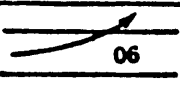
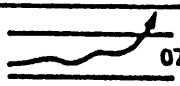
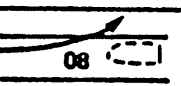
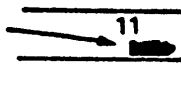
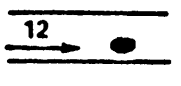
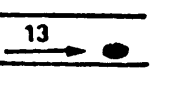
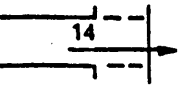
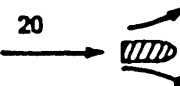
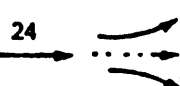
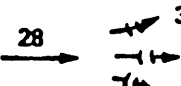


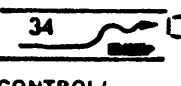
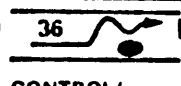
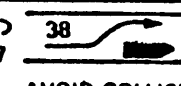
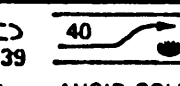
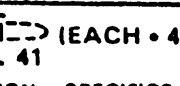
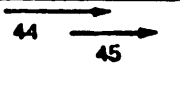
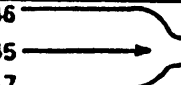

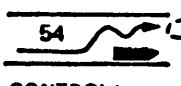
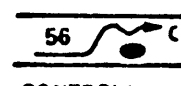
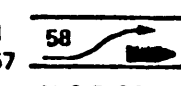
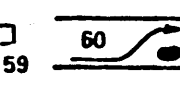






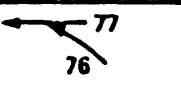
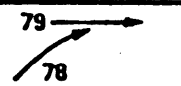
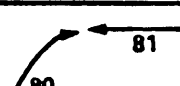
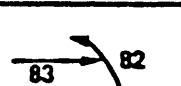
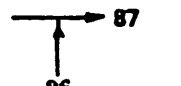
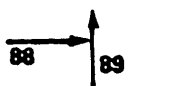

25. Front Override/Underride (this Vehicle) \_\_\_\_\_
26. Rear Override/Underride (this Vehicle) \_\_\_\_\_
- (0) No override/underride, or  
      not an end-to-end impact
- Override (see specific CDC)*  
 (1) 1st CDC  
 (2) 2nd CDC  
 (3) Other not automated CDC (specify):  
       \_\_\_\_\_
- Underride (see specific CDC)*  
 (4) 1st CDC  
 (5) 2nd CDC  
 (6) Other not automated CDC (specify):  
       \_\_\_\_\_
- (7) Medium/heavy truck or bus override  
 (9) Unknown

**RECONSTRUCTION DATA**

21. Towed Trailing Unit \_\_\_\_\_  
 (0) No towed unit  
 (1) Yes--towed trailing unit  
 (9) Unknown
22. Documentation of Trajectory Data  
      for This Vehicle \_\_\_\_\_  
 (0) No  
 (1) Yes
23. Post Collision Condition of Tree or Pole  
      (For Highest Delta V) \_\_\_\_\_  
 (0) Not collision (for highest delta V) with  
      tree or pole  
 (1) Not damaged  
 (2) Cracked/sheared  
 (3) Tilted <45 degrees  
 (4) Tilted ≥45 degrees  
 (5) Uprooted tree  
 (6) Separated pole from base  
 (7) Pole replaced  
 (8) Other (specify):  
       \_\_\_\_\_  
 (9) Unknown

**HEADING ANGLE AT IMPACT FOR  
HIGHEST DELTA V**

- Values: (000)-(359) Code actual value  
 (997) Noncollision  
 (998) Impact with object  
 (999) Unknown
27. Heading Angle For This Vehicle \_\_\_\_\_
28. Heading Angle For Other Vehicle \_\_\_\_\_

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I. Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21, 22, 23	 24 SLOWER 26, 28, 27	 28 DECEL. 29, 30, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	 41 SPECIFICS OTHER SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44 45	 46 45 47	(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	51 (EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	 61 SPECIFICS OTHER SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	65 (EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 SPECIFICS OTHER	 72 SPECIFICS UNKNOWN	(EACH • 74) (EACH • 75)
	K. Turn Into Path	 77 76	 79 78	 81 80	 83 82	(EACH • 84) (EACH • 85) SPECIFICS OTHER SPECIFICS UNKNOWN
V. Intersecting Paths (Vehicle Damage)	L. Straight Paths	 87 86	 89 88	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	93 OTHER VEH. OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

<p>29. Basis for Total Delta V (highest) _____</p> <p><i>Delta V Calculated</i></p> <p>(1) CRASH program—damage only routine</p> <p>(2) CRASH program—damage and trajectory routine</p> <p>(3) Missing vehicle algorithm</p> <p><i>Delta V Not Calculated</i></p> <p>(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.</p> <p>(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.</p> <p>(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.</p>	<p style="text-align: right;">Highest</p> <p>32. Lateral Component of Delta V <span style="float: right;">+ —</span> _____</p> <p>_____ Nearest kph (highest)</p> <p>_____ Nearest kph (secondary)</p> <p>(NOTE: __000 means greater than –0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (__999) Unknown</p> <p>33. Energy Absorption _____, ____ 0 0</p> <p>_____ Nearest 100 joules (highest)</p> <p>_____ Nearest 100 joules (secondary)</p> <p>(NOTE: 0000 means less than 50 joules) (9997) 999,650 joules or more (9999) Unknown</p>
<b>COMPUTER GENERATED DELTA V</b>	
<p style="text-align: right;">Highest</p> <p>30. Total Delta V _____</p> <p>_____ Nearest kph (highest)</p> <p>_____ Nearest kph (secondary)</p> <p>(NOTE: 000 means less than 0.5 kph) (160) 159.5 kph and above (999) Unknown</p> <p>31. Longitudinal Component of Delta V <span style="float: right;">+ —</span> _____</p> <p>_____ Nearest kph (highest)</p> <p>_____ Nearest kph (secondary)</p> <p>(NOTE: __000 means greater than –0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (__999) Unknown</p>	<p>34. Confidence In Reconstruction Program Results (For Highest Delta V) _____</p> <p>(0) No reconstruction</p> <p>(1) Collision fits model — results appear reasonable</p> <p>(2) Collision fits model — results appear high</p> <p>(3) Collision fits model — results appear low</p> <p>(4) Borderline reconstruction — results appear reasonable</p> <p>35. Type of Vehicle Inspection _____</p> <p>(0) No inspection</p> <p>(1) Complete inspection</p> <p>(2) Partial inspection (specify): _____</p> <p>36. Is this an AOPS Vehicle? _____</p> <p>(0) No</p> <p>(1) Yes - researcher determined</p> <p>(2) VIN determined air bag system</p> <p>(3) VIN determined automatic (passive) belts</p> <p>(4) VIN determined air bag and automatic (passive) belts</p>
<p><b>IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [ ] NO</b></p> <p><b>IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO</b></p>	

37. Police Reported Other Drug Presence    $\phi$   

- (0) No other drug(s) present
- (1) Yes [other drug(s) present]
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver    $\phi$   

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

39. Other Drug Specimen Test Type For Driver    $\phi$   

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify): \_\_\_\_\_
- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION

### OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <u>  <math>\phi</math>  </u>	41. <u>  <math>\phi</math>  </u>
Depressant Drug	42. <u>  <math>\phi</math>  </u>	43. <u>  <math>\phi</math>  </u>
Stimulant Drug	44. <u>  <math>\phi</math>  </u>	45. <u>  <math>\phi</math>  </u>
Hallucinogen Drug	46. <u>  <math>\phi</math>  </u>	47. <u>  <math>\phi</math>  </u>
Cannabinoid Drug	48. <u>  <math>\phi</math>  </u>	49. <u>  <math>\phi</math>  </u>
Phencyclidine (PCP)	50. <u>  <math>\phi</math>  </u>	51. <u>  <math>\phi</math>  </u>
Inhalant Drug	52. <u>  <math>\phi</math>  </u>	53. <u>  <math>\phi</math>  </u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>  <math>\phi</math>  </u>	55. <u>  <math>\phi</math>  </u>

## Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

## Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given

**OTHER DATA**56. Driver's Zip Code                     

- (00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
                     Code actual 5-digit zip code  
 (99999) Unknown

57. Driver's Race/Ethnic Origin   1  

- (0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

58. Vehicle Special Use (This Trip)   φ  

- (0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Fire truck or car  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

**ROLLOVER DATA**

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type   φ  

- (0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type specify): \_\_\_\_\_  
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation   φ  

- (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

61. Rollover Initiation Object Contacted   φ     φ  62. Location on Vehicle Where Initial Principal Tripping Force Is Applied   φ  

- (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (8) Non-contact rollover forces (specify): \_\_\_\_\_  
 (9) Unknown

63. Direction of Initial Roll   φ  

- (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

**PRECRASH DATA**64. Pre-Event Movement (Prior to Recognition of Critical Event)   1     φ  

- (01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify): \_\_\_\_\_  
 (98) No driver present  
 (99) Unknown



## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

### Noncollision

- (31) Turn-over — fall-over
- (33) Jackknife

### Collision With Fixed Object

- (41) Tree ( $\leq 10$  cm in diameter)
- (42) Tree ( $> 10$  cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post ( $\leq 10$  cm in diameter)
- (51) Pole or post ( $> 10$  cm but  $\leq 30$  cm in diameter)
- (52) Pole or post ( $> 30$  cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): \_\_\_\_\_

- (69) Unknown fixed object

### Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): \_\_\_\_\_

- (89) Unknown nonfixed object

- (98) Other event (specify): \_\_\_\_\_

- (99) Unknown event or object

## PRECRASH DATA (Continued)

65. Critical Precrash Event 15*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

For Corrective Actions Attempted see variable GV14  
(Attempted Avoidance Maneuver)

66. Precrash Stability After Avoidance Maneuver φ

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) φ

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



U.S. Department of Transportation

National Highway Traffic Safety  
Administration

## CRASHPC PROGRAM SUMMARY

(All Measurements In Metric)

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## Identifying Title

Primary Sampling Unit DSI-94-AB-010  
Case No.-Stratum

Accident Event Sequence No. 01

Date (Month, day, year) of Run 9 4

## CRASHPC Vehicle Identification

Vehicle 1 1994 BUICK LESABRE 01  
Vehicle 2 1987 INTERNATIONAL F9370 \* (OUT-OF-SCOPE) 02  
Year Make Model NASS Veh. No.

## GENERAL INFORMATION

## VEHICLE 1

Size 4  
Weight 1564 + 221 + 0 = 1785 kg  
Curb Occupant(s) Cargo  
CDC 1 2 F D E W 3  
PDOF (-180 to +180) 0 0 5°  
Stiffness 9

## VEHICLE 2

Size 11  
Weight \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ kg  
Curb Occupant(s) Cargo  
CDC \_\_\_\_\_  
PDOF (-180 to +180) \_\_\_\_\_°  
Stiffness \_\_\_\_\_

## SCENE INFORMATION

Rest and Impact Positions [ ] No. *Go To Damage Information* [ ] Yes

## VEHICLE 1

Rest Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Impact Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Slip Angle(-180 to +180) \_\_\_\_\_°

## VEHICLE 2

Rest Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Impact Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Slip Angle (-180 to +180) \_\_\_\_\_°

## VEHICLE MOTION

Sustained Contact [ ] No [ ] Yes

## VEHICLE 1

Skidding (Rotation) [ ] No [ ] Yes  
Skidding Stop Before Rest [ ] No [ ] Yes  
End of Rotation Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Curved Path [ ] No [ ] Yes  
Point on Path X \_\_\_\_\_ m Y \_\_\_\_\_ m  
Rotation Direction [ ] None [ ] CW [ ] CCW  
Rotation >360° [ ] No [ ] Yes

## VEHICLE 2

Skidding (Rotation) [ ] No [ ] Yes  
Skidding Stop Before Rest [ ] No [ ] Yes  
End of Rotation Position X \_\_\_\_\_ m  
Y \_\_\_\_\_ m  
PSI \_\_\_\_\_°  
Curved Path [ ] No [ ] Yes  
Point on Path X \_\_\_\_\_ m Y \_\_\_\_\_ m  
Rotation Direction [ ] None [ ] CW [ ] CCW  
Rotation >360° [ ] No [ ] Yes

National Accident Sampling System-Crashworthiness Data System: CRASHPC Program Summary

**FRICTION INFORMATION**

Coefficient of Friction . \_\_\_\_\_  
Rolling Resistance Option \_\_\_\_\_

**Vehicle 1 Rolling Resistance**

LF \_\_\_\_\_ RF \_\_\_\_\_  
LR \_\_\_\_\_ RR \_\_\_\_\_

**Vehicle 2 Rolling Resistance**

LF \_\_\_\_\_ RF \_\_\_\_\_  
LR \_\_\_\_\_ RR \_\_\_\_\_

**TRAJECTORY INFORMATION**

Trajectory Data ☐ No ☐ Yes  
If No, Go To Damage Information

**Vehicle 1 Steer Angles**

LF \_\_\_\_\_ ° RF \_\_\_\_\_ °  
LR \_\_\_\_\_ ° RR \_\_\_\_\_ °

**Vehicle 2 Steer Angles**

LF \_\_\_\_\_ ° RF \_\_\_\_\_ °  
LR \_\_\_\_\_ ° RR \_\_\_\_\_ °

Terrain Boundary ☐ No ☐ Yes

**First Point**

X \_\_\_\_\_ m Y \_\_\_\_\_ m

**Second Point**

X \_\_\_\_\_ m Y \_\_\_\_\_ m

Secondary Coefficient of Friction . \_\_\_\_\_

**DAMAGE INFORMATION**

**VEHICLE 1**

Damage Length L 1 5 5 cm

Crush Depths  
C<sub>1</sub> φ 5 6 cm  
C<sub>2</sub> φ 5 3 cm  
C<sub>3</sub> φ 5 4 cm  
C<sub>4</sub> φ 5 2 cm  
C<sub>5</sub> φ 3 3 cm  
C<sub>6</sub> φ 3 φ cm

Damage Offset D <sup>±</sup> φ φ φ cm

**VEHICLE 2**

Damage Length L \_\_\_\_\_ cm

Crush Depths  
C<sub>1</sub> \_\_\_\_\_ cm  
C<sub>2</sub> \_\_\_\_\_ cm  
C<sub>3</sub> \_\_\_\_\_ cm  
C<sub>4</sub> \_\_\_\_\_ cm  
C<sub>5</sub> \_\_\_\_\_ cm  
C<sub>6</sub> \_\_\_\_\_ cm

Damage Offset D <sup>±</sup> \_\_\_\_\_ cm

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE *NOT IN TRANSPORT*, FILL IN THE INFORMATION BELOW.

Model Year: \_\_\_\_\_  
Make: \_\_\_\_\_  
Model: \_\_\_\_\_  
VIN: \_\_\_\_\_

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

DSI-94-AB-010

SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

CRASH3 RECONSTRUCTION

SPEED CHANGE (DAMAGE)	VEH #1	TOTAL(KPH)	LONG.(KPH)	LAT.(KPH)	ANG.(DEG)
	VEH #1	39.1	-39.0	3.4	-5.0
	VEH #2	.0	.0	.0	.0

ENERGY DISSIPATED BY DAMAGE VEH#1:107009.1 JOULES VEH#2: .0 JOULES

SUMMARY OF DAMAGE DATA  
VEHICLE # 1

(\* INDICATES DEFAULT VALUE)  
VEHICLE # 2

TYPE-----CATEGORY 4  
STIFFNESS---CATEGORY 9  
WEIGHT----- 1785.8 KGS  
CDC-----12FDEW3  
L----- 154.9 CM.  
C1----- 56.1 CM.  
C2----- 52.6 CM.  
C3----- 54.1 CM.  
C4----- 51.8 CM.  
C5----- 33.0 CM.  
C6----- 29.5 CM.  
D----- .0 CM.  
RHO----- 1.00 \*  
ANG----- -5.0 DEG.  
D'----- -7.9 CM.

TYPE-----CATEGORY 11  
STIFFNESS---CATEGORY 0  
WEIGHT----- 453600.0 KGS \*  
CDC-----BARRIER  
L----- .0 CM. \*  
C1----- .0 CM. \*  
C2----- .0 CM. \*  
C3----- .0 CM. \*  
C4----- .0 CM. \*  
C5----- .0 CM. \*  
C6----- .0 CM. \*  
D----- .0 CM. \*  
RHO----- 1.00 \*  
ANG----- .0 DEG. \*  
D'----- .0 CM.

DIMENSIONS AND INERTIAL PROPERTIES

A1 = 138.9 CM.  
B1 = 150.4 CM.  
TR1 = 157.0 CM.  
I1 = 432655.6 NEWT-SEC\*\*2-CM  
M1 = 17.926 NEWT-SEC\*\*2/CM  
XF1 = 251.0 CM.  
XR1 = -289.6 CM.  
YS1 = 97.8 CM.

A2 = 127.0 CM.  
B2 = 127.0 CM.  
TR2 = 127.0 CM.  
I2 = \*\*\*\*\* NEWT-SEC\*\*2-CM  
M2 = 4553.302 NEWT-SEC\*\*2/CM  
XF2 = 127.0 CM.  
XR2 = -127.0 CM.  
YS2 = 127.0 CM.



DSI-94-AB-010

SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

CRASH3 RECONSTRUCTION

SPEED CHANGE (DAMAGE)	VEH #1	TOTAL(MPH)	LONG.(MPH)	LAT.(MPH)	ANG.(DEG)
	VEH #1	24.3	-24.2	2.1	-5.0
	VEH #2	.0	.0	.0	.0

ENERGY DISSIPATED BY DAMAGE VEH#1: 78915.3 FT-LB VEH#2: .0 FT-LB

SUMMARY OF DAMAGE DATA  
VEHICLE # 1

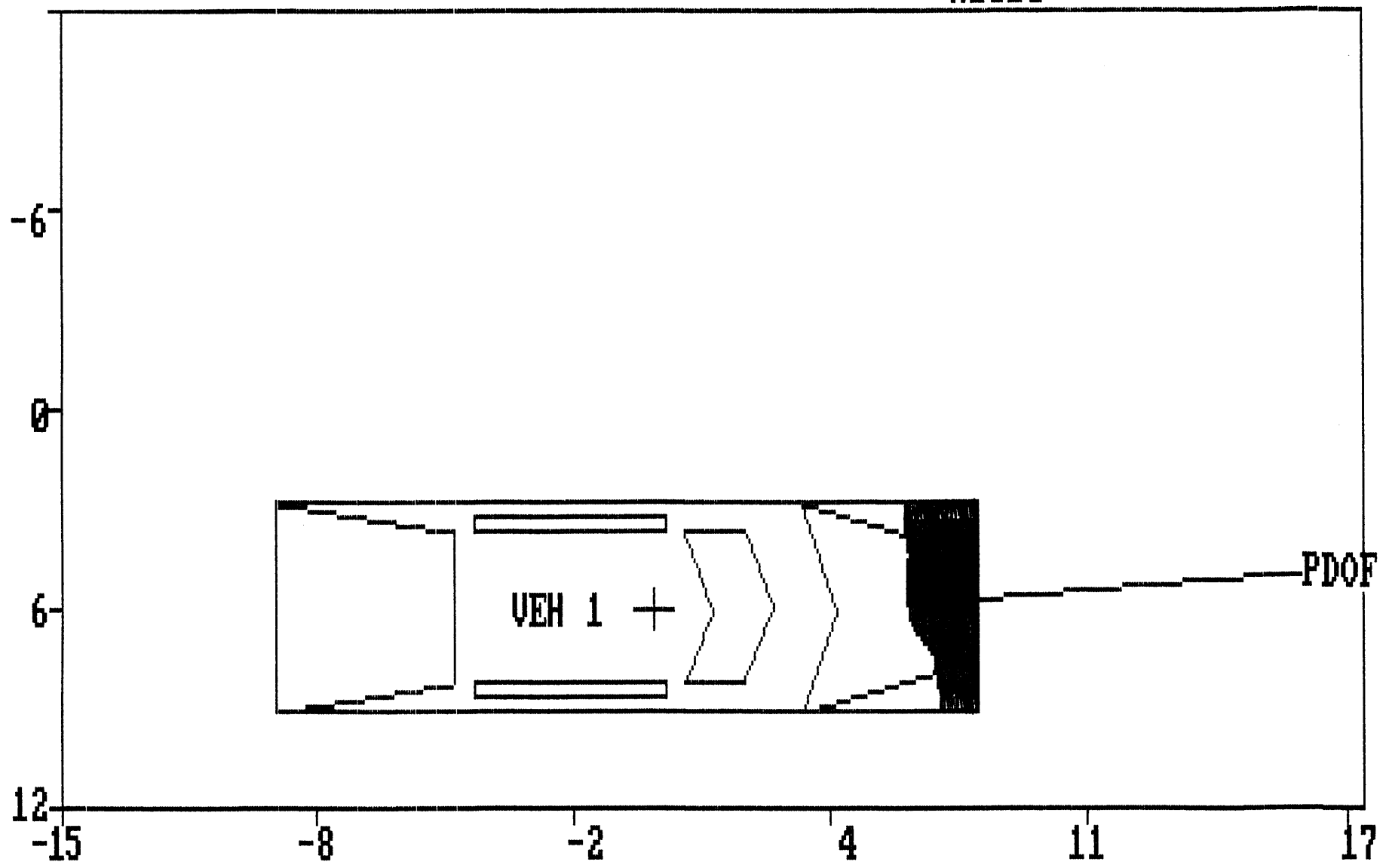
(\* INDICATES DEFAULT VALUE)  
VEHICLE # 2

TYPE-----CATEGORY 4  
STIFFNESS---CATEGORY 9  
WEIGHT----- 3937.0 LBS.  
CDC-----12FDEW3  
L----- 61.0 IN.  
C1----- 22.1 IN.  
C2----- 20.7 IN.  
C3----- 21.3 IN.  
C4----- 20.4 IN.  
C5----- 13.0 IN.  
C6----- 11.6 IN.  
D----- .0  
RHO----- 1.00 \*  
ANG----- -5.0 DEG.  
D'----- -3.1 IN.

TYPE-----CATEGORY 11  
STIFFNESS---CATEGORY 0  
WEIGHT-----1000000.0 LBS. \*  
CDC-----BARRIER  
L----- .0 IN. \*  
C1----- .0 IN. \*  
C2----- .0 IN. \*  
C3----- .0 IN. \*  
C4----- .0 IN. \*  
C5----- .0 IN. \*  
C6----- .0 IN. \*  
D----- .0 \*  
RHO----- 1.00 \*  
ANG----- .0 DEG. \*  
D'----- .0 IN.

DIMENSIONS AND INERTIAL PROPERTIES

A1	=	54.7	IN.	A2	=	50.0	IN.
B1	=	59.2	IN.	B2	=	50.0	IN.
TR1	=	61.8	IN.	TR2	=	50.0	IN.
I1	=	38295.2	LB-SEC**2-IN	I2	=	2600104000.0	LB-SEC**2-IN
M1	=	10.237	LB-SEC**2/IN	M2	=	2600.104	LB-SEC**2/IN
XF1	=	98.8	IN.	XF2	=	50.0	IN.
XR1	=	-114.0	IN.	XR2	=	-50.0	IN.
YS1	=	38.5	IN.	YS2	=	50.0	IN.



DAMAGE DESCRIPTION

## AIRBAG SUPPLEMENT

1

### ACCIDENT SUMMARY

1. Accident Date: ~~REDACTED~~ 94

2. Police Investigated

(1) Yes

(2) No

(3) Unknown

Agency: COUNTY POLICE

City:

County:

3. General Locality

(1) Freeway, Limited Access

(2) Urban (City)

(3) Urban-Rural (mixed)

(4) Rural, Fields

4. Configuration (First Harm)

(0) Struck Object or Ped

(1) Rear-End

(2) Head-On

(3) Rear-to-Rear

(4) Angle

(5) Sideswipe-Same Direction

(6) Sideswipe-Opposite Dir.

(7) Noncollision

(8) Nonimpact Deployment

(9) Unknown

5. Fire Involved

(0) None

(1) Airbag Vehicle

(2) Other Vehicle

(3) Both Vehicles

(9) Unknown

6. Vehicles Involved

7. Persons Involved

8. Injured Persons

9. Maximum AIS in Accident

### AIRBAG VEHICLE INSPECTION

10. Date Vehicle Inspected: ~~REDACTED~~ 94

11. Reason Vehicle Not Inspected

(0) Not Required

(1) Inspection Completed

(2) Cannot be Located

(3) Repaired or Destroyed

(5) Refusal or Impounded

(7) Other:

12. Impact Data Obtained

(0) No Data Obtained

(1) CDC Only

(2) Crush Profile Only

(3) Trajectory Data Only

(4) CDC and Crush Profile

(5) CDC and Trajectory

(6) Crush and Trajectory

(7) CDC, Crush, and Trajectory

13. Basis of Delta-V

(0) Not Computed (Unknown why)

(1) CRASH - Damage Only

(2) CRASH - Damage + Traj

(3) OLDMISS

(4) POLES

(5) Unknown Basis

(6) One Vehicle Beyond Scope

(7) Collision Beyond Scope

(8) Insufficient Data

### VEHICLE HISTORY

14. Prior Impacts for AB Vehicle?

(1) Yes

(2) No

(9) Unknown

15. Has Any Prior Maintenance or Service Been Performed on System

(1) Yes

(2) No

(9) Unknown

Describe:

## AIRBAG SUPPLEMENT

2

### AIRBAG VEHICLE

Fleet: *NONE*VIN: *1G4HR52L3RH*Mileage: *1,334 kms (829 mi)*

### SYSTEM READINESS LAMP

16. Pre-Impact Lamp Condition 9  
(1) Functioning/Proved Out  
(2) Inoperative  
(9) Unknown
17. Driver's Report of Pre-Impact Flashing 9  
(00) No Flashing Reported  
(01) Continuous Flashing  
(02) \_\_\_\_\_  
Number of Flashes: \_\_\_\_\_  
(11)  
(12) Constant Light  
(19) Flashing, Unknown Number  
(88) Not Applicable, System Removed  
(99) Unknown
18. Period of Pre-Impact Flashing 9  
(0) No Flashing  
(1) Same Day as Impact  
(2) Prior Day  
(3) Prior Two Days  
(4) Prior Week  
(5) Prior Month  
(6) Over One Month  
(9) Unknown
19. Post-Impact Lamp Condition 2  
(1) Functioning/Proved Out  
(2) Inoperative  
(9) Unknown
20. Post-Impact Flashing 99  
(00) No Flashing Reported  
(01) Continuous Flashing  
(02) \_\_\_\_\_  
Number of Flashes: \_\_\_\_\_  
(11)  
(12) Constant Light  
(19) Flashing, Unknown Number  
(88) Not Applicable, System Removed  
(99) Unknown

21. Airbag Vehicle First Harmful Event 13  
(01) Fire or explosion  
(02) Immersion  
(03) Gas Inhalation  
(04) Fell from vehicle  
(05) Injured in vehicle  
(06) Other noncollision (specify):  
(07) Overturn  
(08) Jackknife  
COLLISION WITH:  
(09) Pedestrian  
(10) Pedalcyclist  
(11) Railway train  
(12) Animal  
(13) Motor vehicle in transport  
(same roadway)  
(14) Motor vehicle in transport  
(other roadway)  
(15) Parked motor vehicle  
(16) Other type nonmotorist (specify):  
(17) Thrown or falling object  
(18) Boulder  
COLLISION WITH FIXED OBJECT  
(20) Building  
(21) Impact attenuator/crash cushion  
(22) Bridge pier or abutment  
(23) Bridge parapet end  
(24) Bridge rail  
(25) Guardrail  
(26) Concrete traffic barrier  
(27) Median barrier  
(28) Other longitudinal barrier (specify):  
(29) Highway/traffic sign post  
(30) Overhead sign support  
(31) Luminaire/light support  
(32) Utility pole  
(33) Other post, pole, or support  
(34) Culvert  
(35) Curb  
(36) Ditch  
(37) Embankment-earth  
(38) Embankment-rock, stone, or concrete  
(39) Fence  
(40) Wall  
(41) Fire hydrant  
(42) Shrubbery  
(43) Tree  
(44) Other fixed object (specify):  
(45) Pavement surface irregularity  
(99) Unknown

# AIRBAG SUPPLEMENT

3

## AIRBAG VEHICLE IMPACT SUMMARY

22. Vehicle Role 3  
(0) Noncollision  
(1) Striking unit  
(2) Struck unit  
(3) Both striking and struck  
(9) Unknown
23. Manner of Leaving Scene 2  
(1) Driven  
(2) Towed-due to damage  
(3) Towed-not for damage  
(4) Towed-details unknown  
(5) Abandoned  
(9) Unknown
24. Number of Impact Events 1  
(8) 8 or more  
(9) Unknown
25. Rollover 0  
(0) No rollover  
(1) First event  
(2) Subsequent event  
(3) Yes, Unknown event  
(9) Unknown
26. Override/Underride 3  
(0) No override/underride  
(1) Override - 1st CDC  
(2) Override - Other CDC  
(3) Underride - 1st CDC  
(4) Underride - Other CDC  
(9) Unknown

## AIRBAG VEHICLE DAMAGE

CODES: (1) Yes, damaged  
(2) No damage  
(9) Unknown

27. Left Front Fender Damage 1
28. Right Front Fender Damage 1
29. Center Top of Grille Damage 1

## FRONT BUMPER E.A. STATUS

30. Left 4
31. Right 3  
(1) Normal  
(2) Extended  
(3) Partial Compression  
(4) Complete Compression  
(5) Not Applicable  
(9) Unknown

## FIRST AIRBAG VEHICLE IMPACT:

32. Configuration 2  
(0) Struck Object or Ped  
(1) Rear-End  
(2) Head-On  
(3) Rear-to-Rear  
(4) Angle  
(5) Sideswipe-Same Direction  
(6) Sideswipe-Opposite Dir.  
(7) Noncollision  
(8) Nonimpact Deployment  
(9) Unknown
33. CDC: 12 FDEW 3
34. Object Contacted: 1987 INTERNATIONAL TRACTOR/TRAILER

## PRIMARY/DEPLOYMENT IMPACT:

35. Event Number 1
36. Total Delta-V 39 KPH \*  
(24mph)
37. Longitudinal Delta-V 39 KPH \*  
(-24mph)
38. Configuration 2  
See 32 above for codes
39. CDC: 12 FDEW 3
40. Object Contacted: 1987 INTERNATIONAL TRACTOR/TRAILER

\* MARGINAL RECONSTRUCTION, V2 IS OUT OF SCOPE



## AIRBAG SUPPLEMENT

4

### AIRBAG SYSTEM DAMAGE

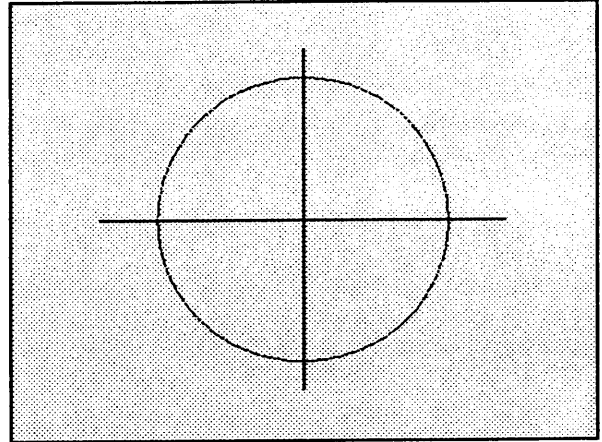
CODES: (1) Yes, Damaged  
(2) No, Intact  
(3) Not Applicable  
(9) Unknown

- |     |  |  |
|-----|--|--|
| 41. | Airbag Module  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 42. | Left Front Sensor  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |
| 43. | Center Front Sensor  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 44. | Right Front Sensor   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |
| 45. | Rear Cowl Sensor   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 46. | Diagnostic Module  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 47. | Wiring   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 48. | Knee Diverter  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 49. | Indication of disconnected<br>or loose electrical<br>connectors  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 50. | Condition of Deployed Bag<br>(1) Bag intact<br>(2) Split or torn<br>(3) Cut by object in impact<br>(4) Cut after accident<br>(5) Other<br>(8) NA (not deployed)<br>(9) Unknown | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |

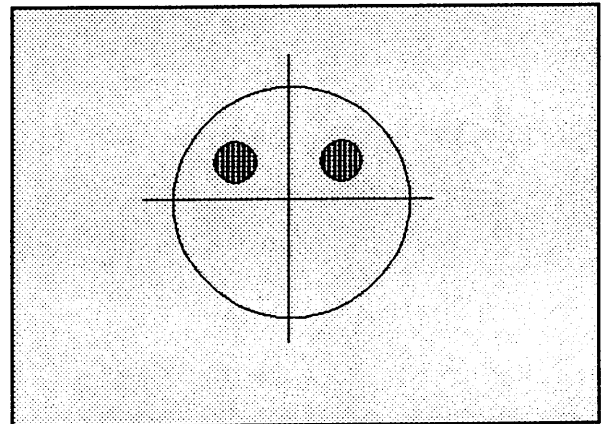
DESCRIBE SYSTEM AND BAG DAMAGE:  
*NO DAMAGE*

NOTE DAMAGE AND CONTACT MARKS ON  
AIRBAG DIAGRAMS BELOW: *NO CONTACT  
MARKS.*

#### FRONT



#### BACK



**AIRBAG SUPPLEMENT**

5

**OCCUPANTS OF AIRBAG CAR**

51. Number of Occupants in Vehicle

**4**

52. Number of Injured Persons

**4**

53. Maximum AIS in Airbag Vehicle

**5**

(0) No Injury

(1-6) AIS Severity

(7) Injured, unknown severity

(9) Unknown

**DRIVER**Age: 7  $\phi$ 

Sex: MALE

54. Number of Driver Injuries

**11**

55. Source of Best Injury Data

**2**

(0) Not injured

(1) Autopsy

(2) Hospital Medical Records

(3) Emergency Room only

(4) Private physician, clinic

(5) Lay Coroner Report

(6) EMS Personnel

(7) Interviewee

(8) Police

(9) Unknown

**MAXIMUM AIS BY BODY REGION**

REGION MAX AIS CONTACT

Head/Neck/Face 1 97Chest 5 11Abdomen 1 41Legs/Hips 3 11Other (Arms) 3 1 $\phi$ 

Driver

Maximum 5 41

EJECTION - NONE

Extent: N/A

Portal: N/A

**OTHER VEHICLE:**Maximum AIS 1Prime/Deploy Impact w AB Vehicle  
Event Number 1

CDC: = TDC 12FZLW2

Total Delta V N/A

Make: INTERNATIONAL

Model Year: 1987

Model: F937 $\phi$   
CBE

Body Type: TRACTOR/TRAILER

**NOTES:**

## AIRBAG SUPPLEMENT

6

**DRIVER BELT USAGE:** (1) Used (2) Not Used (9) Unknown

1

Evidence: *PUCKERING / LOAD MARKS / INJURIES*

**DRIVER POSTURE:** Any comments Recorded (1) Yes, (2) No

2

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs, and feet. Also note hand and arm position. Did driver brace before crash? Describe:

**DRIVER FOREIGN OBJECTS:** Comments Recorded (1) Yes, (2) No

2

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

**DRIVER COMMENTS:** Comments Recorded (1) Yes, (2) No

2

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

**PASSENGER-AIRBAG CONTACT:** (1) Yes, (2) No, (9) Unknown

1

Describe: *VEHICLE EQUIPPED WITH PASSENGER SIDE AIR BAG.  
SEE ATTACHED ADDITIONAL FORM PAGES.*

# AIRBAG SUPPLEMENT

7

## AIRBAG SYSTEM DAMAGE (PASSENGER SIDE)

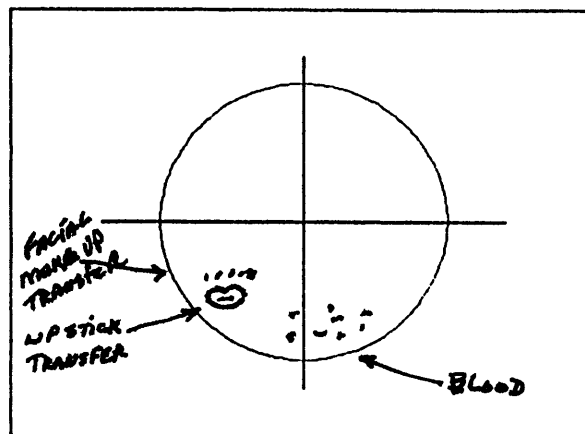
CODES: (1) Yes, Damaged  
(2) No, Intact  
(3) Not Applicable  
(9) Unknown

- |   |  |
|---|--|
| 41. Airbag Module   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 42. Left Front Sensor   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |
| 43. Center Front Sensor                                       | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 44. Right Front Sensor  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |
| 45. Rear Cowl Sensor  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 46. Diagnostic Module   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 47. Wiring  | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 48. Knee Diverter   | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 49. Indication of disconnected or loose electrical connectors | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 50. Condition of Deployed Bag                                 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |
- (1) Bag intact  
(2) Split or torn  
(3) Cut by object in impact  
(4) Cut after accident  
(5) Other  
(8) NA (not deployed)  
(9) Unknown

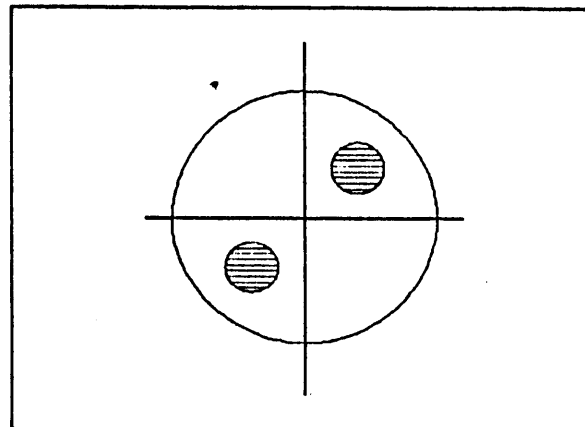
DESCRIBE SYSTEM AND BAG DAMAGE: *No Damage*

NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:

FRONT



BACK



# AIRBAG SUPPLEMENT

8

## OCCUPANTS OF AIRBAG CAR

51. Number of Occupants in Vehicle 4
52. Number of Injured Persons 4
53. Maximum AIS in Airbag Vehicle 5
- (0) No Injury
- (1-6) AIS Severity
- (7) Injured, unknown severity
- (9) Unknown

### R/F OCCUPANT:

Age: 71

Sex: FEMALE

54. Number of R/F OCCUPANT INJURIES 5

55. Source of Best Injury Data 2
- (0) Not injured
- (1) Autopsy
- (2) Hospital Medical Records
- (3) Emergency Room only
- (4) Private physician, clinic
- (5) Lay Coroner Report
- (6) EMS Personnel
- (7) Interviewee
- (8) Police
- (9) Unknown

## MAXIMUM AIS BY BODY REGION

REGION	MAX AIS	CONTACT
Head/Neck/Face	<u>1</u>	<u>97</u>
Chest	<u>5</u>	<u>11</u>
Abdomen	<u>1</u>	<u>41</u>
Legs/Hips	<u>3</u>	<u>11</u>
Other (Arms)	<u>3</u>	<u>16</u>
R/F OCCUPANT Maximum	<u>5</u>	<u>11</u>

EJECTION NONE

Extent: N/A

Portal: N/A

## OTHER VEHICLE:

Maximum AIS 1

Prime/Deploy Impact w AB Vehicle Event Number 1

CDC: =TDC 12FZLW2

Total Delta V N/A

Make: INTERNATIONAL

Model Year: 1987

Model: F 9376 CBE

Body Type: TRACTOR/TRAILER

## NOTES:

AIRBAG SUPPLEMENT

9

R/F  
OCCUPANT BELT USAGE: (1) Used (2) Not Used (9) Unknown

2

Evidence:

DRIVER POSTURE: Any comments Recorded (1) Yes, (2) No

2

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs, and feet. Also note hand and arm position. Did driver brace before crash? Describe:

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No

2

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

R/F  
OCCUPANT COMMENTS: Comments Recorded (1) Yes, (2) No

2

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

DRIVER-AIRBAG CONTACT: (1) Yes, (2) No, (9) Unknown

2

Describe:



## State of Maryland Motor Vehicle Accident Report

BEST AVAILABLE COPY

PORT NO. 1	PAGE OF 2	ACCIDENT DATE 3	ACCIDENT TIME 4	REPORT TYPE 5	LOCAL CODE 6	PHOTOS 7
		9 4	1 9 1 1	<input type="checkbox"/> FATAL <input type="checkbox"/> INJURY <input type="checkbox"/> PDO <input type="checkbox"/> HIT & RUN <input type="checkbox"/> NON-TRAFFIC		<input type="checkbox"/> NO <input type="checkbox"/> YES
INVESTIGATING OFFICER ID 10	AGENCY AND AREA 11	SUPERVISING OFFICER ID 12	REVIEW 13	CODE - AND - NAME OF MUNICIPALITY 14	COUNTY 15	
					02	
RD CHAR 16	RTE NUM Accident Occurred On 17	ROAD NAME 18	IN LANE 19	TRAF SIG 20	ON RAMP 21	Ramp Number (Direction) 22
0 1	0	Blvd.		<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> YES	1 N-W 2 W-N 3 E-N 4 N-E 5 S-E 6 E-S 7 W-S 8 S-W 9 Other
COND 23	INT-RTE 24	INTERSECTING ROAD NAME or Log Mile Reference Manual description. 25	MILEPT 26	DIR 27	Dist. of Acc fr INT-RTE/Ref. & Dir. 28	IN INTERSECTION 29
0 1	0	on ramp				<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
RD DIV 30	ACCIDENT DIAGRAM 31	Describe Accident briefly: identify units by numbers. Also identify the following: a) the OBJECT DAMAGED & NATURE OF DAMAGE (Property other than vehicles) and b) the NAME & ADDRESS OF OWNER when applicable. 33				
0 3	ON RAMP TO	Vehicle one was traveling East on Blvd., failed to stop for the red light at the intersection of Blvd. and the on ramp to Hwy. and struck vehicle two.				
UNIT # 43	NAME (First, Middle, Last) 44	SEX 45	UNIT # 43	NAME (First, Middle, Last) 44	SEX 45	
0 1		0 2	0 2			
PE 46	ADDRESS (No., Street, City, State, Zip) 47	INI 48	TYPE OF UNIT 46	ADDRESS (No., Street, City, State, Zip) 47	INI 48	
0 1			DRIVER "PED"			
MOVEMENT 50	CONDITN 51	SUBST 52	TEST 53	RESULT 54	FOR PDS ONLY 55	AGE 56
0 1	0 1	0 1	0 1	0 1	0	0
EEED LIMIT 57	SAF. EQU 58	EQ PROB 59	EJECT 60	CITATION NUMBER (S) 61	FAULT 62	NO 63
3 5	0 3	0 0	0 1			
GOING 64	DRIVER'S LICENSE NUMBER 65	STATE 66	CLASS 67	GOING 64	DRIVER'S LICENSE NUMBER 65	STATE 66
0 6				0 4		
CONTINU 70	DR DATE OF BIRTH 71	IRREGULAR CONDITION 72	HM SPILL 73	HAZ MAT NUMBER 74	CONTINU 70	DR DATE OF BIRTH 71
0 3					0 4	
BODY TY 75	COMMER. VEHICLE ONLY 76	U. S. DOT NUMBER 77	ICC NUMBER 78	BODY TY 75	COMMER. VEHICLE ONLY 76	U. S. DOT NUMBER 77
0 7				0 7		
OST HE 81	OWNER OR CARRIER NAME (Write "SAME" if Driver) 82	TEL 83	Work 84	Res 85	OST HE 81	OWNER OR CARRIER NAME (Write "SAME" if Driver) 82
0 1	same as above				0 1	same as above
CONTRIB 86	OWNER/CARRIER ADDRESS 87	CONTRIB CIRCUMSTANCES 88	OWNER/CARRIER ADDRESS 87	CONTRIB CIRCUMSTANCES 88	CONTRIB 86	OWNER/CARRIER ADDRESS 87
0 3					0 3	
82-2	YEAR & MAKE OF VEHICLE 83	MODEL 84	1st IMPACT PT. 87	82-2	YEAR & MAKE OF VEHICLE 83	MODEL 84
0 0	9 4 Buick	4 Dr	0 1	0 0	87 Intl.	Tractor
82-3	EXP YR & REGISTR # STATE 85	AREAS DAMAGED 86	82-3	EXP YR & REGISTR # STATE 85	AREAS DAMAGED 86	
0 0		0 1 0 2 1 7	0 0			
82-4	VEHICLE ID NUMBER 92	82-4	VEHICLE ID NUMBER 92	82-4	VEHICLE ID NUMBER 92	
0 0		0 0		0 0		
AM EXT 94	82-4	VEHICLE ID NUMBER 92	AM EXT 94	82-4	VEHICLE ID NUMBER 92	
0 4			0 4			
TRAFFIC UNIT # 97	SEATING POSITION 98	CODE all injured & uninjured PASSENGERS below. Use "W" for witness in TRAF UNIT and SEAT columns. WRITE NAME & ADDRESS of Injured Passengers and Witnesses. 99	Witness telephone # 100	SEX 101	AGE 102	SAFETY EQUIP 103
0 1				0 1	0 1 2	0 1
0 1				0 2	0 0 2 1	0 0
0 1	0 3			0 7	0 1	0 0
W	W					
E UNIT 107	INJURED TAKEN BY: 108	INJURED TAKEN TO: 109	EMS RUN REPORT # 110	E UNIT 107	INJURED TAKEN BY: 108	INJURED TAKEN TO: 109
A	Heliconter	Shock trauma/		A		

Anne Arundel County Police  
Vehicle Inventory Report  
09-40-8

BEST AVAILABLE COPY

Date

REGISTERED OWNER'S NAME <u>TRUCK TRASSOTT</u>				CASE NUMBER <u>[REDACTED]</u>		
REGISTERED OWNER'S ADDRESS <u>[REDACTED]</u>				PHONE <u>[REDACTED]</u>		
DATE/TIME <u>9/1</u>	POST <u>101</u>	VEHICLE REGISTRATION <u>[REDACTED]</u>		YEAR <u>94</u>	STATE <u>CAL</u>	VEHICLE IDENTIFICATION NUMBER <u>[REDACTED]</u>
YEAR <u>87</u>	MAKE <u>Ford</u>	MODEL <u>TRUCK</u>	COLOR <u>BLK</u>			
Vehicle Condition:				Missing Items:		Additional Information (if any)
1. Operable <input type="checkbox"/> Inoperable <input checked="" type="checkbox"/>				1. Motor <input type="checkbox"/>		
2. Vehicle Locked <input type="checkbox"/> Unlocked <input type="checkbox"/>				2. Battery <input type="checkbox"/>		
3. Engine Hood Locked <input type="checkbox"/> Unlocked <input type="checkbox"/>				3. Antenna <input type="checkbox"/>		
4. Glove Box Locked <input type="checkbox"/> Unlocked <input type="checkbox"/>				4. Wheels <input type="checkbox"/>		
5. Trunk Locked <input type="checkbox"/> Unlocked <input type="checkbox"/>				5. Spare Tire <input type="checkbox"/>		
A. With Key <input type="checkbox"/>				6. Hubcaps <input type="checkbox"/>		
B. Forced <input type="checkbox"/>				7. Keys <input type="checkbox"/>		
				a. Ignition <input type="checkbox"/>		
				b. Trunk <input type="checkbox"/>		
				c. Glove Box <input type="checkbox"/>		
				8. Other (specify) <input type="checkbox"/>		
Exterior Condition (specify):						
Miscellaneous Property Recovered (specify):						
Miscellaneous Property Storage Location:						
Operator Information:				Soundex Number:		
Name:				Home Phone:		
Address:				Work Phone:		
Reason for Towing: (If Other State Reason)				Towing Information:		
1. 10-50 <input checked="" type="checkbox"/>				1. Towing from: <u>[REDACTED]</u>		
2. Stolen <input type="checkbox"/>				2. Towed to: <u>[REDACTED]</u>		
3. 10-46 <input type="checkbox"/>				3. Towed by: <u>[REDACTED]</u>		
4. Abandoned <input type="checkbox"/>				4. Tow Operator Signature: <u>[REDACTED]</u>		
5. Parking Violation <input type="checkbox"/>				5. Officer <u>[REDACTED]</u> I.D. # <u>1096</u>		
6. Driver Arrest <input type="checkbox"/>				6. Owner notified: Date/time: <u>at scene</u>		
7. Reg. Violation <input type="checkbox"/>				Notified by: _____		
8. Other <input type="checkbox"/>				7. Release <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, explain)		
Tow Operator Release Info:				8. Comments: (If any)		
1. Vehicle release to: _____						
Signature: _____						
2. Date/time: _____						
3. Charges: _____						
a. Tow _____						
b. Storage _____						
c. Other _____						
Total _____						

Anne Arundel County Police  
Vehicle Inventory Report  
09-40-8

BEST AVAILABLE COPY

07-13-94  
MTH 242  
Date 10/94

REGISTERED OWNER'S NAME [REDACTED]				CASE NUMBER [REDACTED]			
REGISTERED OWNER'S ADDRESS [REDACTED]				PHONE [REDACTED]			
DATE TOWED 10/11/94	POST 401	REGISTERED OWNER'S ADDRESS [REDACTED]		STATE MD		VEHICLE IDENTIFICATION NUMBER [REDACTED]	
YEAR 94	MAKE BUIC	MODEL LDR	COLOR RED	VEHICLE REGISTRATION [REDACTED]	YEAR MD	VEHICLE IDENTIFICATION NUMBER [REDACTED]	
<b>Vehicle Condition:</b> 1. Operable <input type="checkbox"/> Inoperable <input checked="" type="checkbox"/> 2. Vehicle Locked <input type="checkbox"/> Unlocked <input type="checkbox"/> 3. Engine Hood Locked <input type="checkbox"/> Unlocked <input type="checkbox"/> 4. Glove Box Locked <input type="checkbox"/> Unlocked <input type="checkbox"/> 5. Trunk Locked <input type="checkbox"/> Unlocked <input type="checkbox"/> A. With Key <input type="checkbox"/> B. Forced <input type="checkbox"/>				<b>Missing Items:</b> 1. Motor <input type="checkbox"/> 2. Battery <input type="checkbox"/> 3. Antenna <input type="checkbox"/> 4. Wheels <input type="checkbox"/> 5. Spare Tire <input type="checkbox"/> 6. Hubcaps <input type="checkbox"/> 7. Keys <input type="checkbox"/> a. Ignition <input type="checkbox"/> b. Trunk <input type="checkbox"/> c. Glove Box <input type="checkbox"/> 8. Other (specify) <input type="checkbox"/>			
<b>Exterior Condition (specify):</b> [REDACTED]				<b>Additional Information (if any):</b> [REDACTED]			
<b>Miscellaneous Property Recovered (specify):</b> [REDACTED]							
<b>Miscellaneous Property Storage Location:</b> [REDACTED]							
<b>Operator Information:</b>						<b>Soundex Number:</b>	
Name: [REDACTED]						Home Phone: [REDACTED]	
Address: [REDACTED]						Work Phone: [REDACTED]	
<b>Reason for Towing:</b> (If Other State Reason)				<b>Towing Information:</b>			
1. 10-50 <input checked="" type="checkbox"/> 2. Stolen <input type="checkbox"/> 3. 10-46 <input type="checkbox"/> 4. Abandoned <input type="checkbox"/> 5. Parking Violation <input type="checkbox"/> 6. Driver Arrest <input type="checkbox"/> 7. Reg. Violation <input type="checkbox"/> 8. Other <input type="checkbox"/>				1. Towing from: [REDACTED] 2. Towed to: [REDACTED] SERVICE 3. Towed by: [REDACTED] SERVICE 4. Tow Operator: Signature: [REDACTED] 5. Officer [REDACTED] I.D. # [REDACTED] 6. Owner notified: Date/time: [REDACTED] Notified by: [REDACTED] 7. Release <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, explain) [REDACTED] 8. Comments: (If any) [REDACTED]			
<b>Towing or Release Info:</b> 1. Vehicle release to: [REDACTED] 2. Date/time: [REDACTED] 3. Charges: [REDACTED] a. Towing [REDACTED] b. Storage [REDACTED] c. Other [REDACTED] Total [REDACTED]							